NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. XI. BOSTON, OCTOBER, 1859. NO. 10.

NOURSE, EATON & TOLMAN, PROPRIETORS.
OFFICE...34 MERCHANTS ROW.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

OCTOBER.

"Splendor is on the bough!
The withering leaves fall fast;
Yet wilder beauty crowns the forest now,
Than through the summer past.

"A more resplendent blaze,
Of rich and radiant hues,
Gleams through the autumn haze,
Than 'mid the summer dews."—*Wm. Howitt.*

OCTOBER, with its bright sunshine, its bracing air, its gorgeous coloring, would be one of our fairest months, only that a shade of melancholy is thrown over all, by the thought that this beauty is but the last gleam which precedes the gloom of death.

We do not like to see our old friends, the fresh young leaves of last MAY, getting old and dropping off one by one; nor do we like to read the lesson which Autumn teaches to all thoughtful souls.—There is a sad significance in her symbols which we would put aside if we could—but

"It is written on the trees,
As their young leaves glistening play,
And on brighter things than these—
Passing away!"

But, apart from considerations like these, what a splendid panorama OCTOBER stretches out before us! It is true, there are no blossoms on the trees, and few flowers by the wayside, save the golden rod and "everlasting," or in some sheltered spot, where the sun lies long, warming the earth, and the frost is late, the modest aster is still bright, and spreads its clusters to the autumnal breeze: but we can well spare these, when every leaf is crimson and scarlet and yellow, and the meanest shrub at our feet is hung with rubies.

During the exhibition of a painting at Boston, some years ago, one of the spectators was heard to remark by way of criticism, that a certain portion of the foliage was too bright to be natural. Probably no one would have doubted the correctness of the criticism, had it not afterwards been discovered that the foliage referred to was a broken bough from a real tree, and so placed as to seem a part of the picture! And this was the only thing about the painting that seemed too brilliant to be natural. Nor is this necessarily a reflection on the acuteness of the critics. Nature paints in colors so bright, in a style so *original*, that the artist who should copy her faithfully, might well be liable to the charge of exaggeration.

From our window we look out upon a hill in the distance. We have seen it all summer, and it has seemed to be nothing but an eminence covered with trees—but every fall that forest is changed to a regiment of red-coated soldiers, marching, and over the hill we plainly discern the British Regulars retreating from our village! If we would carry out the fancy, we may easily find a counterpart for the "old continentallers" in the groups of hardy looking pines, and scrubby apple trees scattered here and there!

The grapes which grow over your sunny trellis have hitherto been hidden by their large green leaves, but now you can see the rich purple clusters all ready to shed their blood in your behalf. There is something exceedingly picturesque, too, as well as rational, in the loads of corn and pumpkins bound to their winter quarters, and the little boy who is perched on top of them enjoys his ride better than many a rich man in his coach.

Somebody calls Indian Corn "the *Golden*

Fleece found by our Pilgrim Fathers on their first landing." It has certainly always been an important article in the productions of the United States, and is still much used in the "brown bread" of the North, and the "corn cakes" of the Southern States.

It is possible we are writing for some who may remember the "huskings," which have become almost traditional among us now, when the great barn-floor was swept as clean as the floor of the good wife's kitchen, and the whole scene was made brilliant by tallow-candles hung up in tin lanterns at a safe distance from the hay-loft, while the party below, consisting of young people of both sexes, sat around on the floor, on such seats as could be easily improvised, and stripped off the husks amid much laughter and merry talk. A red ear was said to give peculiar privileges to the finder, but of this we would not be supposed to know any thing from experience. The festivities of the occasion were wound up with a supper, and perhaps an eight-handed reel, for we are speaking of times when "the sinfulness of dancing" had not been made an article of faith in all our country villages—when even the parson himself might look on with an approving smile.

Whether more business was accomplished by a husking of this sort, than by a good, steady, gander-party, we are not prepared to say, but certainly there must have been a good deal more fun, and we have great faith in uniting the "useful with the agreeable."

Belonging to the same category, were the "apple-bees" of the olden time—and we cannot say they may not be in vogue in some of our rural districts even yet,—when neighbors met at each other's houses to help prepare the winter "sarse," —and sour enough it was, if we may trust the memory of our early days.

It is wonderful how an apple-paring taken off whole, and thrown over the head, would always form the initial letter of your "true-love's" name. It never comes any thing but a long crooked S!

Now, with the gathering in of the harvest, and preparations for Winter, October is a busy month. It is a month, too, when the farmer sees the reward of his past labor spread out before him—for it is only the "fowls of the air" who are privileged to expect food or clothing while they neither toil nor spin. On man it devolves to win his bread "by the sweat of his brow."

In an old volume of the *New England Farmer*, dated 1822, we came across the following:—"In a country where the springs are backward, as in the northern parts of New England, farmers should do all they can in autumn to diminish or lighten the labors of the following spring, when they will have much work to perform in a short time."

We offer the quotation as "a word to the wise," which is said to be "sufficient."

For the New England Farmer.

FOWL MEADOW GRASS.

Your issue of to-day contains an interesting article by Mr. Holbrook on the cultivation of fowl meadow grass, at the close of which he calls for the experience of others.

I am now fifty years old, and have been acquainted with this grass all my life, and cannot understand why it has received so little attention from farmers. Without going into a general discussion of the subject, I will state a few facts which can be relied on.

1. For cows and young cattle, there is not a better or more economical hay grown in New England.

2. Under the most favorable circumstances the yield is very large. I have seen more than three tons to the acre.

3. It does best on natural moist meadows, which are properly but not too much drained.

4. It should never be cut until a portion of the seed is sufficiently ripe to fall and re-seed the land. *This is indispensable.*

5. It is not injured by standing until the seed is all ripe. I have known it to ripen, lodge and sprout at the joints, yet in a ton of such hay fed to cows and young cattle in the winter, there would not be one pound of waste. In fact there is no waste in this grass.

6. Fowl meadow is never ready to be cut until all the other haying is over.

These facts apply only to the grass as raised on moist meadows. I know nothing of it as an upland crop

I would advise farmers to procure a few quarts of seed and sow it as early in September as possible, on their rich, moist meadows, plowed if dry enough, if not, unplowed, and if it grows, watch it with the greatest care, and let every seed ripen for their own use. T. P. C.

Aug. 27, 1859.

MILK WHICH DOES NOT YIELD BUTTER—MEANS TO REMEDY IT.

M. Deneubourg addresses those who are chiefly interested in cases in which there is no disease of the mammary gland or loss of milk, but a want of oleaginous matters in the fluid. In the causes of this deficiency of butter-making quality, he concludes that there are two principal ones, viz.: idiosyncrasy and alimentation. But there is another which cannot be so easily defined, and which occurs in animals that are well kept, and whose milk has been previously rich in butter. It is to these that the remedy is principally directed. The remedy consists in giving the animal two ounces of the sulphuret of antimony, with three ounces of coriander seeds, powdered and well mixed. This is to be given as a soft bolus, and followed by a draught composed of half a pint of vinegar; a pint of water, and a handful of common salt, for three successive mornings, on an empty stomach.

The remedy, according to the author, rarely fails, and the milk produced some days after its exhibition is found to be richer in cream. The first churning yields a larger quantity of butter, but the second and the third are still more satisfactory in their results.

A letter from a farmer states that he had fourteen cows in full milk, from which he obtained very little butter, and that of a bad quality. Guided by the statements of M. Deneuborg, which had appeared in the *Annales Veterinaires*, he had separately tested the milk of his cows, and found that the bad quality of it was owing to one cow only, and that the milk of the others yielded good and abundant butter. It was, therefore, clearly established that the loss he had so long sustained was to be attributed to this cow only. He at once administered the remedy recommended by M. Deneubourg, which effected a cure.—*Veterinarian.*

Remarks.—We publish the above in order to call the attention of farmers to the subject. The statement is a strong one, that the milk from a single cow should so modify that from *thirteen* others as to spoil the butter. Still, the milk from a cow who gives a large mess, and that of a thin, watery character, does have, to our personal knowledge, a bad effect upon the milk of other cows, in butter-making.

BLASTING ROCKS.

An account of a new invention for facilitating rock blasting, and to prevent premature discharges, is going the rounds of the newspapers. It is said to be the invention of J. G. Buckley and S. B. Mosher, of Schaghticoke. This is very like an invention or suggestion of Eli Whitney, who, in response to a request from government, if we mistake not, proposed that a wooden cone, having a hole through it for the fuse, should be lowered down directly upon the powder, and then a few coarse, angular stones should be dropped in to wedge down the cone; upon these smaller stones and earth could be filled in. When the powder is ignited, the effect is to force the base of the cone to lift a little, thus wedging it firmly in the hole, and splitting and spreading it somewhat to fill the whole; thus very cheaply effecting what must be attended with considerable expense in the contrivance described as follows:

"As is well known, after a hole has been drilled in the earth to be blasted, and the powder inserted, it has to be "tamped," that is, the hole is filled up with some substance, which is rammed down in the most solid manner—a process that consumes a great deal of time, and is attended with much danger, the blast often exploding prematurely from the blow struck in tamping. This invention obviates the trouble and risk of this process. It is a plug of steel, somewhat in the shape of a syringe. A small hole extends down through the centre. The plug tapers from the bottom towards the top, but as it is partially sawed into four parts, and capable of expansion, a rod worked from above and passing through the centre, fitted to a cone-shaped screw, spreads out the plug so that if placed over the powder it completely fills up the space excavated by the drill, and of course none of the explosive power of the powder is lost. A second hole in the plug allows the passage of a safety fuse. It has two or three rings around it, and can be wrapped with two if necessary, so that its hold is perfect. The plug can be lowered into the hole above the powder, or placed in a lateral drill, the rod be turned, the plug spread out —all in a few minutes, and after the explosion, it can be taken out uninjured."

For the New England Farmer.

CROPS IN CHESHIRE COUNTY, N. H.

Messrs. Editors:—The season is now well advanced, and I am prepared to place upon the record a statement of the crops. The last winter, with its 30 snow storms, 83 inches of snow, 120 days of uninterrupted sleighing, and the thermometer 44° below zero, has not only destroyed many a pair of good lungs, but left the fatal print of its icy hand upon the whole face of the vegetable world.

The weather is now delightful, save the cold, chilly nights, which we have had through the season up to this moment. The hay crop is nearly in, well cured, and a good one. Wheat is remarkably good—the best and heaviest I ever saw in this vicinity. In consequence of the high price of flour in the spring, nearly every farmer has his field of wheat, and it has proved a worthy effort—one step more towards his independence!

The sharp frosts of May and June nearly destroyed our corn crops, and a very small harvest must be the result. Many fine fields were plowed in and sown to Dutch wheat, to the profit of the farmer even. This crop is fast coming into favor with our farmers. It has the advantage of an alternative crop, as it does best when sown as late as the middle or last of July, after the long, hot days have past, and yields well. I am trying some corn this season where I grew a fine crop of buckwheat last, which looks like the boy's calf, "kind o' gi'n out." Barley and oats look well. Potatoes, (don't tell the Irish,) are vibrating between good and bad.

Fruit trees seem to present the shadowy spectacle of a "dissolving view." The great depth of snow during the winter kept the frost out of the ground, which set the sappy fluids in motion and predisposed the trees and buds to the killing effects of the frost. Never before have I seen so many trees "killed and wounded" in one season. I believe the fruit buds of the apple and pear will successfully resist the action of the frost of the severest cold of our climate if the ground be sufficiently frozen to hold the sap in a dormant state. The alternate cold and warm days of early spring are much more destructive. Then, again, after blossoming, the cold, easterly wind, sharp lightning and heavy thunder will cut off the fruit with an electrical nicety. Immediately after the extreme cold of January 9, 10 and 11, I discovered by a black spot upon the ovary of the blossom bud that the peach crop was destroyed.

L. L. Pierce.

East Jaffrey, N. H., Aug., 1859.

For the New England Farmer.

KEEP THE BOYS AT HOME.

If the farmers scattered over our land would but mind this simple injunction, how much happiness would they lay up for themselves, and how many of their sons would they save from a life of shame and disgrace. Keep the boys at home! Why? For the following reasons:—

First—Keep the boys at home, because it is the best place on earth for them. If you are a good intelligent farmer, and if you make your home what you ought to, a place where love and harmony, pleasant words and kind acts are ever to be found, what place is there, north or south, east or west, that is so well calculated for a young man? It is the best place for them, away from the temptations that meet young men at every corner of a city. A young man that leaves a comfortable home, with fair prospects in life, to mingle in the turmoils of cities, steps from a path of roses to one of thorns; steps from the side of true and loving friends to seek the acquaintance of those that are friends only for a brief day, while the sun of prosperity shines, and at the approach of sickness, misfortune or sorrow will disappear like shadows on the wall.

Second—Keep the boys at home, because you want them to share the labors and pleasures of life. How pleasant the sight to see an aged man going smoothly adown the declivity of life, supported by his sons. Many a father has looked forward with heartfelt joy to the time when his son would stand by his side, sharing with him the storms and sunshine of life.

But how shall I keep the boys at home, exclaims many a reader. Very easily. Many a young man has been driven from the parental roof by excessive labor, by "all work and no play." I have seen many a father more careful of his noble horse, or a favorite yoke of cattle, than he was of his own son; these he would work with moderation, allow them a fair nooning, and provide liberally for their wants. But how is it with many a farmer's boy? Called up early in the morning, hard at work before breakfast, with tools that no man would work with, yet good enough for the tender hands and growing muscles of a boy; his breakfast hastily swallowed in about a quarter of the time that the horse is eating his, and then away to work, straining every muscle in his body to keep up with men double his size. Cross words and sometimes blows are added to these, year after year, until he grows sick and discouraged with a farmer's life, and so looks forward with joy to the day of his majority.

What wonder is it that so many of our young men are not willing to stick to the farm? What wonder that they look with distrust on such a life of servitude? And who wonders that so many fathers exclaim, "I can't make my boys like farming!" The remedy is simple; remember that they are boys, not men. Bring all the light, learning and science of this enlightened age to bear on your noble profession—a noble profession, notwithstanding you make it a life of slavery. Buy labor-saving machines, not every new-fangled notion that is offered you by every travelling pedler, but those that have been tried in the field as well as puffed up in the city papers. When such a machine has been pronounced just the thing, buy it, and if you have farmed it for so many years, and have not as yet laid up money enough so that you can afford to buy it get your next door neighbor, with one or two others in the village, to purchase it with you, and use it by turns; you will soon afford to buy one yourself. Make the boys feel an interest in the work of the farm—let them have a share of the profits of some field. Subscribe for the *New England Farmer*, and let the boys read it; you will soon find the excellent advice contained in its columns will make them feel contented with a farmer's life, and if you yourself glean no useful knowledge from its pages, the boys will, and they will soon begin to make a change for the better in the old homestead. The cattle will be cared for in a better manner, your work done at the proper season, according to the monthly calendars, and you will have at last to join in singing

"A farmer's life is the life for me,
I own I love it dearly."

When you do this, you will find no difficulty in keeping the boys at home, and you will thank the editor of the *Farmer* for publishing the article entitled—"Keep the Boys at Home."

J. F. K.

For the New England Farmer.

HOW SHALL WE LEARN WHICH IS THE BEST GRAPE?

Messrs. Editors:—The great interest now aroused in the culture of the grape, with a view of producing new varieties, whose good qualities are more available in our northern climate than those promised by the long cultivated Isabella and Catawba, has induced many enterprising cultivators to raise young seedlings, hoping to secure the one prize that must be hidden among thousands of blanks. Such enterprise is very praiseworthy, but the result will be that about every experimenter will be fully persuaded in his own mind that he is the fortunate man, that he has obtained *the* new variety which the liberal premiums of our agricultural societies have in view: an early grape, a sweet grape, a spicy grape, a good bearer of well-set bunches, and, withal, a hardy variety, whose wood shall not be killed by the colds of winter, nor its fruit mildew in the reeking heat of summer.

Now, who is to decide when a thousand positive men shall be endeavoring to persuade us that they have secured *the* variety? Within a year I have seen a circular which set forth the merits of a new variety, one of the weightiest arguments in which was the fact that it was the best of about forty seedlings, and therefore must be a desirable grape! Why, if a thousand seedlings will reward the enterprising cultivator with one really desirable variety, he is a very fortunate man, and will be most royally paid for all his outlay of time, trouble and expense. Mr. Dana, of one of our northern States, (of Lebanon, N. H.,) has taken a step in the right direction to test the comparative merits of rival competitors, in offering one hundred dollars for the best new grape, of which a vine or cuttings shall be sent by each competitor, to be fruited by that gentleman himself. To say nothing of certain im-

possible conditions on which this premium is offered, (the time in which the award is to be made rendering it utterly impossible to determine some of the desirable qualities which are needed in a good grape,) the fact that a single individual is to have so much to do with the award of it will detract greatly from the value of the experiment, in the judgment of sensible men. In making this remark, I will cast no reflections on the gentleman offering the award; he is entirely unknown to me, and his idea of testing the comparative merits of new varieties on a large scale is an excellent one; but what the public want is, that the question as to which is the best grape for general out-door culture, shall be settled by some responsible body that have a wide reputation, and in whom we all have confidence.

The Massachusetts Horticultural Society could place the public under lasting obligations, should they take this matter in hand, with such variations from the plan of Mr. Dana as their extensive knowledge and large experience might suggest. No prophet is needed to foretell that in the course of a few years a large number of new seedling grapes will be in the market, the successful sales of which may depend more on the financial capacity of the parties by whom they are introduced, than on the merits of the grapes themselves. Would not the Massachusetts Horticultural Society fill an honorable sphere by taking the burden of an experimental test upon themselves, thus saving thousands of enterprising men from a costly and annoying experience?

Marblehead, Mass. J. J. H. GREGORY.

For the New England Farmer.

A VISIT TO THE HOMESTEAD OF FARMER ALLEN.

To one accustomed to the heat, noise, dust and effluvia of a large city, the coolness and quiet of a night in the country is eminently refreshing. An exhausted frame with the fatigue of a day's ride, induced me to retire early to rest, and my dreams were pleasant, indeed. The gladsome crowing of the cocks, the singing of the merry birds, the echoing of the lowing kine, awoke me with their melodious sounds at an early hour, and I witnessed a joyful sight at sunrise in the country. The sun peeping over the eastern hills, and a thousand voices from all animated nature poured forth a volume of music to my ears. Bold chanticleer, perched on the garden-fence, commenced the morning concert by one of his ringing proclamations; he was answered by his brothers from all the neighboring barn-yards; the meek looking cows arose and welcomed the milkers with their bright pails, who were soon draining the sweet milk from their flowing udders; the birds gayly singing from the tree-top, and the swallows twittering from the eaves of the barn, the satisfied grunt of the swine in their well-cleaned pens, all broke upon my sight and ears, and produced such harmony as I never experienced before, and the notes still linger, like a half-remembered lay, in my ear.

I attended the country church on the Sabbath, and was forcibly struck with the solemnity that pervaded all. The people seemed to come not to display the latest fashion, or the skill of their dressmakers, but to refresh their souls, and to gather new courage to battle with the trials, disappointments and sorrows of the coming week. The next morning, after partaking of a plentiful breakfast, my friend proceeded to show me over the farm. We first inspected the barn, and the first thing that I noticed on entering was the neatness that pervaded the entire premises.—Every harness, rake, pitchfork, everything in the tie-up, the horses' stalls, and even the calf-pen, were as neat and in as good order as if the barn had never been occupied. Mr. Allen informed me that he often harnessed a horse after dark without the aid of a lantern, thus avoiding the danger of setting the building on fire. The barn is 100 feet long and 50 wide, with a light and dry cellar under the whole. He told me that he obtained many of his valuable ideas about his farm by inspecting the large barn of Hon. Mr. French, at Braintree. The tool-house next claimed my attention; here, also, "order reigned supreme." On looking round, it made me think of one of our Boston agricultural warehouses. Here I saw one of Willard's patent root-cutters, which Mr. Allen considers a valuable machine for cutting all kinds of roots for feeding to the stock; even pumpkins are easily cut with it previous to cooking for the swine; it is easily operated by a good sized boy, and is a durable and labor-saving machine both to man and beast.

But I cannot describe a quarter of the tools and utensils that were hanging from the walls and reposing on the floor in their respective places, all ready to perform good execution in lightening the labor of man.

Emerging from the tool-house, I passed into the orchard, with its regular rows of trees, all in bearing condition. Mr. A. told me that when he purchased the farm at about half of its present value, of the former owner, there were only about 50 old apple trees on the place; he immediately commenced digging round the old and half-dead trees, and setting out new ones, and the result has been in producing one of the finest orchards in the neighborhood. I asked Mr. A. if he ever used strong potash lye on his trees. "O, no," said he, "I tried it once on that tree," pointing to the meanest looking tree in the orchard, "and the result has satisfied me of its utter absurdity." I admired the straightness of my friend's trees, and in reply to a question, Farmer Allen told me that when his trees were about as large as his wrist, he cut some crotched limbs, sharpened one end, and sticking it into the ground, put the crotch part against the trunk or limb of the tree; a little old matting is placed between the tree and the stick to prevent it from chafing the bark of the tree. My friend takes almost as much pains in training up his trees in the way they should go as he does with his children.

Among the summer apples that he recommends, were the Early Harvest, which succeeds well in all our northern States; the Sweet Bough—this is also a valuable apple; it is a large, roundish shape, sometimes conical, of a pale greenish yellow, flesh very tender, and of an excellent sweet flavor; succeeds well in all the northern States; the Golden Sweet is a fine apple. Of winter apples, Mr. Allen recommends the Belmont, the Hubbardston Nonsuch, a large, round-

ish apple, striped with light, rich red streaks, flavor, mild sub-acid, excellent, succeeds best in the northern States. Peck's Pleasant is a large apple, good bearer, fruit always fair. The Jonathan, so called, is a great bearer; color a deep, bright red, of an excellent flavor; the Baldwin, Rhode Island Greening, Northern Spy, Newton Pippin and Roxbury Russet are all too well known to need a description. These are a few varieties which my friend recommended with a good deal of confidence, as we were standing under the branches of a large Porter apple tree. Of pears, the following are always good; viz.: the Bartlett, Napoleon, Vicar of Winkfield, Dix and Seckel. These are all good varieties, and will amply repay the care of cultivation.

My friend now wanted me to go and look at a piece of land that he had reclaimed, and we were preparing so to do when the pleasant sound of the dinner-horn broke on our ears, and as our morning exercise had given us a keen appetite, we concluded to postpone the visit until after dinner. In my next, I will give you an account of the visit to the reclaimed land, and my observations in the hay-field, not forgetting to speak a good word of the utility of the hay-caps.

FREEMAN.

For the New England Farmer.

BARN ARRANGEMENTS.

MR. EDITOR:—I will give you some idea of the way in which I intend to build a barn. I propose to have it of sufficient size to accommodate my stock of three horses, three cows and a yoke of oxen, leaving room for hay, grain, granary, store room or tool house, &c. I intend to have upon one side my granary, and a large bay for hay, &c., and on the other side stalls for my stock of cattle and horses, a tool room, &c. Underneath the stalls I propose to construct a tightly cemented manure cellar, of sufficient capacity to contain about two hundred loads of manure, and so arranged as to receive all the manure, both solid and liquid, from the stalls. I shall have adjoining my barn a building so constructed as to contain a henery, store room with cellar underneath for roots, a room for cooking food for hogs, hens, &c., and a pig sty, to connect with the before-named manure cellar. I shall give my hogs the range of the manure cellar, and shall, from time to time, put into it muck, leaves and other matter, as often as it shall be necessary. I also intend to have a drain or pipe running from my house (which is on a higher level than my barn,) to the manure cellar, and to carry into it all night-soil, soap-suds, and all kinds of liquids valuable for manurial qualities.

I hope, with the above named conveniences, and the assistance of three or four of the hog kind, to keep a small farm in a high state of cultivation.

What say the editor and my brother subscribers to the *N. E. Farmer*, to my plan?

Boston, August 5, 1859. C. C. H.

REMARKS.—Your plan appears well in description, but a ground plan would have given us a better idea of it. When the barn is completed, give us an invitation to look at it.

BARNSTABLE AGRICULTURAL FAIR.

In looking over the account of this fair, there are two things that strike us very agreeably at the outset.

The fair was held on two days, and the annual meeting for the choice of officers and the transaction of business was held on the forenoon of the first day. While the articles for the show were being arranged in the hall, and the stock in the pens, the members met, and deliberately transacted their business. This gives them time to do all that is necessary, without the hurry and confusion that usually attends these meetings after the dinner, at the close of the fair, when every one is in haste to get away. Under such circumstances, the business is apt to be done hastily, and with too little thought, and important matters are forgotten, or referred to committees. Could the affairs of our county societies be transacted more deliberately, and the views of all the members be brought out, there would be more union and harmony in their management. When a fair is held two days, we think the Barnstable plan is an excellent one.

The second thing to which we refer is the appointment of a committee to superintend the setting out of ornamental trees upon the grounds of the society. This matter has been too much neglected. Most of our show grounds might, by proper attention, and with little expense, be converted into beautiful and attractive places. Ornamental trees tastefully arranged, and paths skilfully laid out, and a smooth, green surface between the walks, would render them much more attractive, and add much to the comfort and pleasure of the occasion. It would tend to foster good taste in the minds of the members and visitors. We hope the example of this society will be followed by all societies which own grounds devoted to the purposes of an annual fair.

We infer from the report that the directors determined to have a good time at the fair, and fully succeeded. What was wanting to make their *Agricultural Show* attractive, they made up in attractions of other kinds. They bought together His Excellency the Governor, and various notabilities from all points of the State. The Ancient and Honorable Artillery company from Boston were there, and the Boston Brass Band, with various side shows, such as a revolving swing, the Ethiopian troupe, big oxen, &c., and last, but not least, a splendid ball on the evening of the second day. J. B. Smith got up one of his best dinners. Gov. Washburn made an eloquent oration, and there was the usual variety of speech-making, and other talk, interspersed with songs and music by the band.

But amidst all this display and show, we fear

that the farmers themselves showed rather small,—that they were pushed, or fell into the background—and but little was actually done, to promote the growth and improvement of agriculture. When the energies of a society are expended in getting up a grand festival, the real object of its organization is apt to be overlooked. We take it, the "chief end" of a country agricultural society is to awaken in the people a deeper sense of the *importance of Agriculture*, and to stimulate the farmers to greater efforts to develop the agricultural capacities of the country. For this purpose, the best specimens of stock and other farm products are brought together, that they may be seen and examined, and the improvement, from year to year, noted. Premiums are awarded to reward and encourage effort. If military displays, military music, and fancy balls and other side shows, *are needed* to accomplish the legitimate objects of the societies, then let us have them, by all means.

"The whole programme of exercises for the occasion was entirely and splendidly successful," and "Wednesday and Thursday are days long to be remembered in the history of the Barnstable Agricultural Society." Well, we shall see.

WOMEN IN THE GARDEN.

Much in these days is said about the sphere of woman. Of the vexed question we have nothing now to say. The culture of the soil, the body and the soul are our themes. Rich soils, healthy bodies, pure, cultivated souls, these are what we are aiming at. And to this end we recommend that every country woman have a garden that she keep and dress with her own hands, or that she supervise and manage. The culture of strawberries, raspberries, blackberries, gooseberries, currants and garden vegetables is as delightful and profitable as anything in which a woman can engage. She may sprinkle her garden well with flowers. All the better for that. A snowball in this corner, a rose in that, a dahlia bed there and a moss border here will not be out of place. Only let the substantial and useful constitute the chief part. A touch of the ornate, like a ribbon on a good bonnet, is not in the least objectionable. In all the schools the girls study botany. In all families the women ought to practice botany. It is healthful, pleasing and useful. The principles of horticulture are the principles of botany put into practice. Farmers study agriculture, why should not their wives and daughters study horticulture? If any employment is feminine, it would seem that this is. If any is healthy, this must be. If any is pleasurable, none can be more so than this. A rich bed of strawberries, a bush of blackberries or currants, a border of flowers produced by one's own hand, what can well afford a more rational satisfaction? We say to all our country sisters, have a garden, if only a small one, and do your best with it. Plant it with what pleases you best, with a good variety, and see what you can do with it. What woman cannot raise beets, tomatoes, melons, onions, lettuce, and furnish her own table with them? What woman cannot plant a raspberry bush, or currant, or gooseberry and tend it well? Come, good women, study your health, your usefulness and happiness, and your children also.—*Valley Farmer.*

For the New England Farmer.

IS THERE ANY PROFIT IN FARMING?

Mr. Editor:—I have been some seven or eight years engaged in the business of agriculture, and have generally found the answer to the above question to be in the negative in most of my direct operations on the farm. I have been also somewhat observant of the progress of my brother farmers in this section, and New Hampshire, to some extent; also, I have taken some pains to inquire of those whom I meet from other sections of this, and other States; and if I should tell what I honestly believe in the matter, I should say that not one farmer in ten is making a living, unless he has some resource besides the farm, and laying by three per cent. on the capital invested.

Perhaps you will say, it is not good policy to publish this to the world, as most farmers are in debt, and, as the Frenchman said, "they are growing no better very fast." Now, if what I say is true, that agriculture is not a paying business in New England, that the farmers are working hard and long, to no profit, that they are generally in debt, and many hopelessly so—that farm property is deteriorating in value, (I mean the real property,) in three-fourths of the towns where farming is the principal pursuit; that the report on the poor in this State shows that it costs nearly double according to the population for their support in the agricultural, than in the manufacturing and mechanical towns and cities of the commonwealth; that no poor man, however industrious, can expect to succeed in the business; if he makes the attempt, it is only to his sorrow; that, while catering to the wants and comforts of others, he can but illy afford to enjoy them himself; that, in short, while seeing the thrift and prosperity of the different classes all around him, who are non-producers, he must remain content.

Now, says the reader, is this so? I supposed that the farmers all the time lived in clover; that they were almost the only truly independent and happy people amongst us; that they had nothing to do but to pluck and eat. What made you think so? Have you been in the habit of listening to the speeches of some official or ex-official, (who is anxious to cut off the ex,) at some County or State show, or perhaps on the eve of an election, or is it some "three-cow gentleman farmer" who has told you about the "six bright milk pans which reclined against the fence," or "the angel cow that stood in the yard?" All this is very pretty to talk about, and it is undoubtedly highly agreeable to farm when one has money to spend that he never earned, or having earned a fortune at some other pursuit, is willing to spend a portion of it in this way, to make a show, or for the public good, either of which is highly detrimental to the true interest of the farmer. Perhaps this class of farmers of whom I am now

speaking, take a good deal of pride in showing folks how things *can* be done, and what monstrous crops *can* be raised, and what mammoth cattle *can* be produced. The reader will recollect that it is the *profit* that we are looking at, and not that great things can be done, or that farming is not a very agreeable way of spending money.

I never heard of but one man who had made anything like a fortune at farming, and this was an *honest* old deacon, who was so highly elated with his great success, that he concluded to lecture on it before the town society. Of course everybody was on the *qui vive* to know how it was done, so he had an anxious auditory. I will not undertake to follow him in his remarks here, but will merely state that he closed evidently with as much satisfaction at his success at lecturing, as at fortune-making. The lecture had no other effect that I could see, than to create a smile on the part of the listeners, and reminding one of the anecdote of the lawyer and the iron kettle. The lawyer arose in court with a good deal of pomposity, and says, "Your honor, my client here is accused of stealing an iron kettle, now, may it please the court, I shall prove in the first place, that this plaintiff here never owned an iron kettle; and in the second place, that the kettle was broke when he took it; and in the third place, that he never took the kettle at all." This was about the way with the deacon's fortune.

The reader will please excuse this seeming digression, although it is not really so, for we have just this class in the community, who, like this deacon, imagine they have great success, and never find out their mistake, till it is too late to remedy the evil.

Does the reader want any facts to prove what I have said? If so, and he will listen one moment, I will give him a few of the many that are now on my mind. Go into the rural districts and see what proportion of the farms have been long in the market without a customer, price them, then figure up the improvements, and see if the soil is not a free gift. Go further than this, and price the yearling heifer you see in the yard, Now ask what it cost to raise it, and you will be told, I don't know. This is true, he don't know. But Dr. Bartlett, of this town, will tell you that it costs twenty-three dollars to raise a yearling and this is probably about double the price named. Then ask what he gets for his milk? Two cents per quart. Is this the cost? I don't know. Hear what the Secretary of the Board of Agriculture in this State, says in the matter. "By actual experiment at the State Farm at Westboro', it has been proved to cost twenty-five cents per day for the six cold months, and six cents per day for the other six, to keep a cow." This would make the cost of keeping a cow one year, fifty-seven dollars and twenty cents. Now, how much milk will a cow give in a year? Our farmer says he don't know. And he tells the truth, undoubtedly. But what will our authority tell us has been proved to be the fact? On the average for each day in the year, a good cow will give four quarts per day, or 1460 quarts a year, which, at two and a half cents per quart, amounts to thirty-six dollars and fifty cents a year, making a loss of twenty dollars and seventy cents a year, for each cow, calling the manure sufficient compensation for taking care of them.

I might carry these remarks to a much greater extent with about the same result, but fear I am getting tedious, and intend to refer to the subject again, if the *Farmer* will give me the privilege.

Now, I want to thank the editor of this paper for bringing up the subject in his last issue; for it is the profit of farming that we want to talk about, and not what we can do. But the grand question with the farmer is, will it pay to do it? I have the very best authority for saying that no business that does not pay, is useful and healthful.

T. J. Pinkham.

Chelmsford, Mass., July 25, 1859.

For the New England Farmer.

UNFRUITFUL GRAPE VINES.

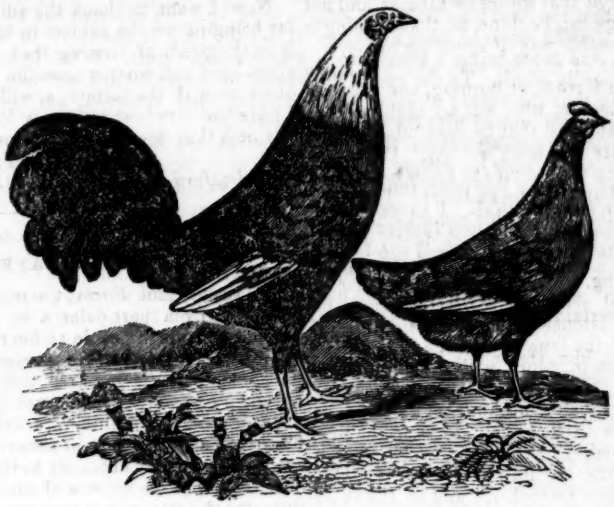
I noticed in the *Farmer*, some time since, an inquiry why a particular vine of the Isabella grape could not be made to bear; and in reply, an intimation that the cause might be its standing at a distance from any other vine. I have proved by numerous experiments, that the grape does not need the vicinity of another vine, as each flower has all the organs necessary to fruitfulness. I will suggest that exposure to the cold of winter sometimes injures vines without killing them. In this case the vine will leave later in the season, but afterwards may make a luxuriant growth. In such cases the flower buds, though perfectly formed before, develop only leaves. This is almost uniformly the case in all attempts to cultivate the peach in Maine. The trees will grow rapidly, and one acquainted with the peach will find abundance of flower buds perfectly formed in the fall; but in the spring these buds throw out only leaves, the flower germ having been killed by freezing, while the leaf germ, (if I may use such a distinction,) survives. Grape vines must be sheltered in winter to secure fruit. When the Isabella, left without proper shelter, succeeds in making fruit, it will be a fortnight later in ripening than the fruit of a properly protected vine.

J. S. Swift.

Farmington, Me., August, 1859.

Remarks.—Mr. J. J. H. Gregory, of Marblehead, in a recent communication on this subject gives as a reason why some grape vines do not bear fruit, that they are imperfect ones. He says: "Struck by the phenomenon of vines abounding in fragrant blossoms without setting fruit, I gathered the blossoms and compared them with those from fruit-bearing vines. The difference was at once apparent; the blossoms of the two vines which had never borne were not perfect in structure; the stamens were present, but the pistil was wanting. Such vines cannot bear—it is a physical impossibility. Had the pistil been present they might have borne, though the stamens had been wanting, receiving pollen from the stamens of other vines."

☞ There is an average of 300 bushels of whortleberries brought into the Boston market each day. The consumers do not, however, all reside in Boston.



THE SCOTCH GAME FOWLS.

The beautiful specimens of fowls which are figured above, we do not present to encourage any propensity for the cock-pit or prize fight, or because we think that, upon the whole, they would be more profitable, as a breed, for our poultry yards generally; but because we suppose the Game Fowl is a pure breed, and that such blood infused into our common fowls would greatly improve them.

In Dixon and Kerr's excellent work on Poultry, it says—"Of all the varieties of domestic fowls, except, perhaps, the Smooth-legged Bantans, the Game Fowl is the most symmetrical. It is more slender in the body, the neck, the bill and the legs, than other kinds, and the various hues of the plumage are more brilliant and showy. Their flesh is white, *compact*,—like that of the race-horse compared with the scrub,—delicate, and very nutritious.

"There are evidently two varieties of the game fowl, if not more. The first occasionally seen in the yard of the farmer, is a bird over the average size, and rather heavily formed; rather too much comb; breast quite black; neck, back, and wings a very deep red; tail, glossy green. The hen plain brown, with a lighter colored neck, sometimes a little streaked with ochre; legs light-colored or white.

"The other variety, which I much prefer, and now possess, is a smaller fowl, of a peculiarly light and elegant make; head very small and fine; neck, light orange red; breast richly spotted, as are, also, in a degree, the wings; the back, a very rich red; tail, glossy greenish black; legs, dark. Hens, brown, of various shades, the feathers being streaked with pale ochre down the middle, the same as pheasants; comb, in the cocks very small, and not large in the hens."

The eggs are a little smaller than those of our common fowls. The hens are good setters and mothers. A cross with the game fowl would undoubtedly give stamina and value to most of our common breeds.

For the New England Farmer.

"COPELAND'S COUNTRY LIFE."

Mr. Editor:—I have rather hastily examined the above work, particularly the author's remarks on the cultivation of Fruit Trees. There are many excellent hints and directions regarding their culture, but in his "wholesale denial," as he terms it, of scraping and washing the bark of any tree, it seems to me he is entirely at fault; for although, with him, I believe that lichens and mosses of various kinds are not the cause, but generally the consequence of a diseased state of the tree, still the woolly aphis, called in England the American blight, which is occasionally found in the forks of the branches of our apple trees if suffered to multiply, does injury, seeming to burn the bark upon which it fastens; then, again, we have another insect, somewhat allied to the above, which has been termed the scale, or miniature tortoise, found upon the bark of our young pear trees, fastening themselves closely upon the bark. They are white externally, but when rubbed off emitting a red liquid; this insect, when

abundant, will surely destroy the limb or check the growth. Their first appearance, some years since, with me, was upon young trees received from Long Island, and my neighbor Manning observed to me that the first time he found this insect was upon trees he received from Flushing.

As for lichens and moss being a benefit to a fruit tree, I can hardly admit. To the eye of the botanist it may be that the beauty of color, is so great, particularly when united with the delicate ferns, that he wishes to preserve them, the same as a true lover of nature may be willing to forego the pleasure of eating a fine pear, thus merging the useful in the beautiful. I cannot subscribe to his conclusion, that "no insects which harbor in the outer bark of trees, and can be removed by scraping and washing, are really injurious to the tree," and also that, "No tree has ever been with certainty benefited by scraping and washing."

I do admit with him, that many insects which are found in the rough bark are not necessarily injurious to the trees, such as spiders or their larvæ, and that the rough bark is not of itself detrimental to their growth, as it is often thrown off by nature; and still, it is undoubtedly at first, as he says, a protection against heat and cold. I shall take another opportunity to speak of his directions, &c., on the culture of our small fruits

Salem, August, 1859. J. M. Ives.

GATHERING AND PRESERVING FRUIT.

BY ROXBURY RUSSETT.

Whoever would derive large profits and prices from his orchard, must be prepared to take care of his fruits, as after they are grown they have to be gathered and preserved; and the better this part of the work is done, the more profits will be obtained. Besides, it is the preservation which enables the fruit-grower to put his valuable varieties in market when they are worth the most money.

The best mode of gathering as yet known is by hand with the aid of self-supporting ladders, and small baskets, cushioned on the inside. There are various contrivances, and some of them really meet all the requirements wanted, with the exceptions that they use up too much time. These contrivances answer for amateurs, but not for farmers. Every fruit taken from the tree should have its stalk unbroken, it should be gathered by hand, and placed in the basket, carefully and lightly, not allowing it to drop, or to knock against other fruit, or against any substance that would bruise it in the slightest degree. The same care should be taken in removing the fruit when gathered to the fruit room, or place where they are to be kept. They should not be removed in a wagon or a wheel-barrow. They should be carried in large baskets on a hand-barrow, for that is the only method by which they can escape a certain amount of jolting.

The sooner winter fruits are removed to where they are to be kept, after being gathered, the better. The usual place of storing them is in cellars, where there are no special fruit rooms provided for them. If they have to be kept in barrels, each barrel should be clean and dry before the fruit is put into them. Then they should be laid in as carefully as if they were eggs, for good keeping winter apples are worth as much, and good winter pears are worth a great deal more. But though it is the practice to put fruit in barrels to keep, it is not one that can be recommended, unless the fruit is about to be sent to market within a short time. When in barrels also, fruit cannot be inspected and watched, the decayed or decaying ones removed, and good supervision maintained.

Shelves are much better, and these shelves might be so arranged and divided that each subdivision would hold the produce of a single tree. By thus keeping the fruit of each tree separate, there would be less danger of spoiling. Trees of the same variety frequently grow fruit very different in quality, and while the produce of some will be scabby and wormy, the fruit of other trees will be free from these defects. A range of shelves, each one capable of holding from five to six bushels or two barrels, would accommodate an orchard very well. For a tree that produces two barrels of choice fruit worthy of being kept over, may be considered a first rate tree; and an orchard that contains fifty of these trees is a first rate paying investment. By keeping sorts separate, and even the growth of each tree from each other, much sorting and picking will be avoided. No fruit should go upon shelves that is not first rate in quality. The cullings, which may be used or sold, could be preserved either in barrels or on the floor, till got rid of by sale or otherwise.

The fruit room should be a cellar, capable of being well ventilated, and made dry before the fruit is placed in it, but afterwards it should be kept close, dark, and the temperature should at all times range between 35° and 45° Farenheit. Light and heat both act on the fruit and cause it to mature; and maturity is always followed within a short period by decay. Hence all fruit should be gathered at a period before they become quite ripe. The low temperature and the exclusion of light delays the time of maturity, hence the keeping quality.

A French writer, in the *Revue Horticole*, also claims that all the carbonic acid evolved from the fruit, should, if possible, be retained in the room. Hence after the fruit is put in its place, the room ought not to be ventilated, as this would permit this gas to escape, and also change the temperature. The same writer also charges on good grounds that all moisture or humidity should be kept out of the fruit room, as it likewise promotes decomposition, but the air should not be too dry, as then the fruit would dry up and wither.

It is calculated that a room 15 feet long, 12 feet wide and 9 feet high would hold shelves enough for 8000 large sized winter apples or pears, allowing each one to occupy an area of four inches square, so that no fruit would touch each other. Allowing 150 apples to a bushel, would make room for about 600 bushels of apples, not one of which would touch the other, or at least 1200 bushels where they were piled two in height. Those who have good cellars for fruit will now see the advantage of them; but we should prefer a room in the orchard built under the shade of the trees, in the manner of an ice-house, with double walls, doors and windows.—*Michigan Farmer.*

EXTRACTS AND REPLIES.

WINTER-KILLING OF TREES.

In a recent number of the *Farmer*, one of its most closely observing correspondents offered a few suggestions relative to statements which I had made in relation to the winter-killing of fruit trees in Maine. His suggestions are important, and in the main, correct. He is, however, mistaken in supposing that the killing alluded to was effected by the hard frosts of autumn. One proof is found in the fact that no loss was suffered in any grade of nursery trees, in any situation below the surface line of the snow as it lay at the time when the thermometer sunk to the fatal point. The rapid growth of the Baldwin is not the only cause of its winter-killing. I cultivate other varieties which make more growth than the Baldwin, which are not injured by cold that causes mercury to congeal. The Baldwin is a tender variety, I fear too tender for reliance in Maine. But I agree with your correspondent that it is not best to be discouraged, or another generation may pass before we have another winter as fatal as the last, and that two years preceding. At any rate, the Baldwin must not be forced too hard in its culture in northern latitudes. J. S. SWIFT.

WHEAT—TOP-DRESSING.

Can you give me any information with regard to a kind of wheat called weevil-proof winter wheat, and whether it is true to its name or not. I have often thought that if there is such a kind of grain that would be suitable to our climate, it would be a blessing to us farmers to have it to cultivate. There is also another kind of grain called Speltz, a kind of wheat, I believe; the heads grow very long, and when threshed, the kernel remains in the shuck. I had a few kernels of each of these kinds sent to me in a letter, and I sowed them in my garden; I see no signs of weevil about them, but how it would be as a field crop, I do not know.

Is there anything that would make profitable top-dressing for grass land where there is not enough manure to go over all? Would lime, superphosphate of lime, guano, or any of the numerous fertilizers, be profitable for such? Should all top-dressing be put on in the fall?

Barnet, Vt., Aug., 1859. SOME ANON.

REMARKS.—We have never heard of the wheat you speak of.

A top-dressing for grass land of clear yellow loam is valuable. Lime would undoubtedly be useful, but whether it would be profitable, would depend upon circumstances. So with superphosphate and guano.

TO "A LOVER OF GOOD PICKLES."

My plan is to select cucumbers of small size, throw them in cold water a few hours, place in a small tub; cover with vinegar that is not very strong—in about two weeks pour it off and replace with good vinegar that has been scalded, skimmed, sweetened slightly and spiced with ginger, cassia-buds, lemon-peel, &c. Pour the vinegar over the fruit while hot; when cool, set it in the cellar and stir often enough to prevent a scum forming over it. Should the vinegar become flat, replace it with more prepared in the same manner. I have so preserved them the last two or three years, and find no difficulty in keeping, unless placed upon the dinner-table.

Putney, Vt., Aug. 8, 1859. H. E. H.

CROPS OF THE SEASON.

I just now met my neighbor Huntington, and inquired of him as to the prospect of the crops of the season. He said he should have very little, comparatively, for the market—full three-fourths of his onion crop having been destroyed by the maggot. I asked him what he thought of the use of guano, as a preventive of the maggot. "Nothing at all," said he. "The best onions I have, are on a part of the Whittridge lot, where I applied no fertilizer of any kind. It happened in this way—my manure gave out before I got through planting, and I thought I would try the remaining rows without any manure at all. I shall have more good fair onions on these rows, than on all the rest of the lot. I give you the facts as he stated them." There is no man among us, whose word would go farther than that of Benjamin Huntington.

Aug. 4, 1859. SOUTH DANVERS.

THE WILD CARROT.

Can you inform me the most ready way to exterminate the wild carrot, so called?

Chilmark, Aug., 1859. JOHN HAMMETT.

REMARKS.—Where the wild carrot has become quite numerous, we doubt whether it can be exterminated short of plowing and cultivating the ground with other crops. If the land is well plowed, manured and cultivated, and given a crop of potatoes or corn, and then properly seeded to grass, the grass will be quite likely to take precedence of everything else.

TWO YEARS' OLD PICKLES.

HENRY J. DURGIN, Shaker Village, N. H., has sent us a bottle of pickles which he states are two years old. They are hard, sound and fine flavored. He also states that it takes but forty-eight hours from the time they are taken from the vines to make them perfect. Any one desirous of knowing his process may communicate with him as above.

THE MASSACHUSETTS DOG LAW.—Our legislature, at its last session, passed a pretty stringent dog law, which we hope has gone into vigorous operation. In some towns we have been gratified to see that its provisions have received decided action, and that there is an evident diminution of that worse than worthless property. Read the extract below.

WHAT OUR DOGS COST US.—We extract from the Assessor's returns to the County Auditor, says the Belmont (Ohio) *Chronicle*, the amount

of sheep killed and injured in the county, during the past year. The result is anything but encouraging to the canine species. The whole number of sheep killed was one thousand and nine. The number injured was one thousand, one hundred and twenty-five. The amount of injury done, in killed and damaged, is estimated at the round sum of *three thousand five hundred and eighty-nine dollars*. Add to this the amount it cost to keep the dogs of this county, and we have them costing more than perhaps any luxury—if such they be—indulged in.

For the New England Farmer.

FOWL MEADOW GRASS AND ITS CULTIVATION.

BY FREDERICK HOLBROOK.

The late Hon. John Lowell, in a communication to the old *New England Farmer*, Vol. 9, for the year 1831, remarked of the fowl meadow grass:—"If this truly Yankee grass could be translated to all the meadow bottoms, the naturally moist, cold, half-peaty lands of New England, their produce would be at least doubled. Low meadows are chiefly furnished with the different species of carex, a coarse, sharp, worthless grass, on which no animals but those which are nearly famished will feed, and on which those who do feed constantly decline. We have then one species of grass not usually cultivated, which is of inestimable value. It is no idle speculation, but sober fact, our agriculture has much to gain by the active, earnest, assiduous propagation of this grass."

Having in former years read several interesting articles upon the fowl meadow grass, I have been led the more closely to examine, from time to time, its habits and qualities, as I find it growing in the lower and more moist portions of the intervales of the Connecticut river; and I think it will bear all the favorable commendation Mr. Lowell has bestowed upon it. This grass grows in patches here and there in the intervale lands near my residence. Until within the last year, we have made no systematic efforts to cultivate it. Still it has come in, of itself, and held long possession in certain places, and grows very vigorously wherever it has foothold. It somewhat resembles redtop in general shape and appearance of stalk, head and seed, but the head is of a lighter or paler color, and the stalk grows taller than redtop, and quite slender and delicate, while the bottom or lower foliage is very abundant and fine. It undoubtedly excels herdsgrass and redtop for a large product and fine quality of hay. It turns out a full swath to the scythe, the hay is easily cured, remarkably soft, tender, and succulent, excellent for milch cows, and particularly for working oxen during their labors in the spring season.

Observing these qualities from time to time, I was induced last year to procure two bushels of the seed of fowl meadow grass, for the Vermont Asylum, situated near me, with a view to its systematic cultivation on the lowland meadow belonging to that Institution. The seed was sown about the middle of August, a year ago now, on land prepared for it by deep, thorough plowing, with the Universal double or sod and subsoil plow. The land had been thoroughly ditched, and drained to the depth of three feet, about five years previously, and was at that time stocked down with herdsgrass and redtop. The wild grasses beginning to appear somewhat, it was thought best to plow it up and seed anew. The land being very rich, and in a good state generally, no manure was applied to it last year, but immediately after plowing, it was harrowed down smooth and fine, and the seed sown and "bushed in." A part of the fowl meadow seed was sown alone, and a part mixed with herdsgrass and redtop seed, each in about equal measure, and the mixture sown on the remainder of the plowed land. I obtained the seed of Nourse, Mason & Co., Boston, and would have been glad of more, but was informed by their seedsman that two bushels was all the seed the market then afforded. How singular that so valuable a grass should be so little cultivated for seed.

On that portion of the land where the fowl meadow seed was sown alone, the grass has come very well indeed; it is now heading out, and I find it corresponds in every particular with the grass growing about in patches in the intervale, and which I had always taken for fowl meadow, judging from the descriptions I had read of it. The grass from the new seeding will be ready for the scythe in a week or two, and is thick and of extra quality. On that portion where the fowl meadow, herdsgrass and redtop seeds were sown in mixture, the fowl meadow has vegetated and grown, as well as the other two grasses, and the whole will soon be fit to cut. It is quite apparent, however, that the fowl meadow is to be the best grass of the three.

This lowland meadow embraces a number of acres, the draining and reclaiming of which I have felt much interested in, and have heretofore quite fully described in the *New England Farmer*. As fast as it becomes desirable to plow and reseed this land again, we intend to stock it down with the fowl meadow grass, believing that to be the most valuable of all grasses for such kind of low moist land.

The fowl meadow grass is not liable to injury from the flooding of the land by freshets. That is a great merit, for these lowest portions of our river lands are subject to overflow, and after a winter or spring freshet, the water not unfrequently remains on the land a week or fortnight at a time; and sometimes before one flood has entirely subsided, another succeeds, and keeps the land wet for three or four weeks. I infer that the flooding is an advantage, rather than otherwise, from the fact that wherever this grass has come in, of itself, it has invariably done so on those portions of the meadow that are overflowed. The fowl meadow grass will last in the land for an indefinite period. The self-seeded patches of it, about in our meadow, have flourished there for a long time, in spite of wind and tide, yielding as full and good crops now as at any former period.

It is universally the impression among our farmers, that fowl meadow grass should not be cut till the seed ripens; that too early cutting has a tendency to enfeeble the roots; and that it perpetuates its hold on the soil by annually shedding its seed thereon. I am not able to speak from positive experience on this point; and

would like exact information from any reader who knows the habits of the grass in this respect. This much I have observed, that the quality of the hay is not at all injured by letting the grass stand till the seed is ripe. The bottom foliage seems to thicken up all the more by delaying the cutting till into August, and it holds perfectly fresh and green till after the heads are ripe. In fact, I have noticed occasional little patches, on the sides of the ditches or in corners of the field, which happened to escape the scythe at haying time, that held perfectly bright and green at the bottom till late in the autumn, or until eaten off by the cattle ranging in the fall feed. I have to-day been down into the meadow and gathered a handful of the grass, to see the stage of forwardness of the heads, and find the seed sheds a little now. From the first to the middle of August, I judge would be a suitable time to cut fowl meadow, as it usually grows in this intervale.

August and the fore part of September is a good time to sow the seed. The land should be plowed deep, with a plow suitable for four or more cattle, so as to have earth enough above the inverted sod out of which to raise a deep mellow surface-tilth, free from sods and old grasses. A moderate dressing of rotten compost would be well, spread on the surface and harrowed in. But if the land is rich and mellow, and well drained, it may do without the manure. After harrowing well, sow the seed liberally—six to eight pecks per acre—and work it in with a bush or light roller, which will give it a sufficient covering. Where land has been recently drained, and is for the first time taken up from a wild, wet state, and is encumbered with hassocks, bogs, and other coarse matters, which need subjection, it might be well to till it for a year or two in hoed crops, perhaps manuring it somewhat for the same; and when thus brought to a suitable fineness of tilth, it might be stocked down in the spring with fowl meadow grass, but omitting the sowing of a grain crop with it, as the grain would choke the grass too much, and prevent its thriving, thus adding nothing to the ultimate product or profit of the land.

So far as I have observed, the fowl meadow grass does not grow in an underdrained bog. It wants moist land, such as a lowland meadow, or a swamp or swale, well drained, so as to relieve the surface of all stagnant or standing water.

The *name* of this grass is a little unfortunate, inasmuch as most persons, on hearing or thinking about the name, without attending to the spelling of it, get the idea that it is a sort of *foul* grass, of a sour, swaley character. Nothing, however, could be further from the truth, as it makes the very finest and sweetest of hay.

The Rev. Doct. Jared Elliot, in an essay written in the year 1751, gives some interesting facts respecting the origin, habits and qualities of this grass. In Vol. 4, old *New England Farmer*, I find the following extract from his essay. "There are two sorts of Grass, (says the Doctor,) which are natives of the country, which I would recommend; one is *Herd-Grass*, (known in Pennsylvania by the name of *Timothy-Grass*,) the other is *Fowl-Meadow*, sometimes called *Duck-Grass*, and sometimes *Swamp-Wire-Grass*. It is said that *Herd-Grass* was first found in a swamp in Piscataqua, (now Portsmouth, New Hampshire,) by one *Herd* who propagated the same:—That *Fowl-Meadow-Grass* was brought into a piece of meadow in Dedham, (near Boston,) by ducks and other wild water-fowl, and therefore called by such an odd name. It is supposed to be brought into the meadows at Hartford by the annual floods, and called there *Swamp-Wire Grass*. Of these two sorts of Natural Grass, the Fowl-Meadow is much the best; it grows tall and thick, makes a more soft and pliable hay than Herd-Grass: it yields a good burden, three loads to the acre. It must be sown in low, moist land. Our drained land, when it is of sufficient age, is land very agreeable to this sort of grass. This grass has another good quality, which renders it very valuable in a country where help is much wanting; it will not spoil or suffer, although it stand beyond the common time of mowing. Clover will be lost, in a great measure, if it be not cut in the proper season. Spire-Grass, commonly called English Grass, if it stand too long, will be little better than rye-straw: but this Fowl-Meadow may be mowed at any time from July to October."

I for one should be gratified if correspondents of the *Farmer* familiar with the fowl meadow grass, would give us the details of their experience with it, and call the attention of our farmers to its cultivation. The draining and reclaiming of bog-meadows, swamps, and other wet and swaley places, and converting them into handsome, productive mowing-fields of the cultivated grasses, is now becoming considerably practiced in New England. I am persuaded that much benefit might be realized to our agriculture, by inducing the farmers to stock their reclaimed wet lands with the fowl meadow grass.

Brattleboro', Aug. 5, 1859.

For the New England Farmer.

OIL SOAPS FOR BORERS.

MR. EDITOR:—An article under the above heading, in your August number, has caught my attention. Perhaps Mr. P. refers to an article of my writing; if so, he may be informed I used common whale-oil soap, worth in New Bedford about eight cents per pound. My manner of using it was to clean the trunks of the trees, from three inches below the surface of the ground to six inches above, perfectly clean of little fibrous roots, loose bark, and every extraneous substance, and after doing so, to rub in the soap in an undiluted state most thoroughly, filling all the worm-holes. I also dug out all the worms I could get at, and those I could not readily reach, I probed with a piece of whalebone.

I don't know when the egg is deposited, but from my observation, it is hatched in the early part of June, near the surface of the bark, and the borers are then most easily destroyed by the application of the soap.

I have discovered but two borers in my orchard since my first application, and several of my trees which were very badly injured, are now completely recovered.

I believe it is three years last spring since I made this experiment which has proved perfectly satisfactory. NATHAN BRIGGS.

Sippican, Mass., August 8, 1859.

FOOD FOR COWS.

We would commend the following article to the perusal of those of our readers who have the care of cows, as it presents many important suggestions to which they will assuredly find it for their interest to attend. With those who are familiar with the writings of M. Chabert, and with his exalted character and high standing as a scholar, any commendation from our pen, further than to bespeak attention to the subject, would be superfluous.

"M. Chabert, the director of the Veterinarian School at Alford, England, had a number of cows which yielded twelve gallons of milk each day. In his able publication on this subject, he observes that cows fed in winter on dry substances alone, yield less milk than those that are kept on a green diet, and also that their milk loses much of its good quality. He published the following recipe, by the use of which his cows afforded him an equal quantity and quality of milk during the winter as during the summer.

Take a bushel of potatoes; break them whilst raw, place them in a barrel standing up, putting in successively a layer of bran, and a small quantity of yeast in the middle of the mass, which is to be left there to ferment during a whole week, and when the vinous taste has pervaded the whole mixture, it is then given to the cows, who eat it greedily."

We are inclined to think the present practices of feeding cattle in winter are far from being strictly economical, and will continue to be, so long as they are fed entirely on crude food—on hay unchaffed, and on roots and grain uncooked. Hay cut and moistened with warm water, and mixed with a very small quantity of rasped roots potatoes, carrots, beets, turnips, parsnips, pumpkins or apples, will go twice as far as when fed in its long state. Beside, the cutting will enable the feeder to use up his rough fodder to good advantage—his stalks, poor hay, straw, &c., and to keep more stock, and in better condition than he could possibly by adhering to the old system of feeding.

Steaming is another means of economizing food, and one which is overcoming the prejudices with which its introduction was attended.

A friend of ours made an experiment by feeding his milch cows for an entire winter upon *hay tea*—tea made by steeping hay in hot water in the same manner that the fragrant leaf from the Celestial Empire is prepared for our social cup of tea.

Eradication of Stumps.—Where it is necessary to remove large stumps, under circumstances which render it impracticable to avail one's self of the assistance of a "stump machine," the work may be successfully accomplished by burning. This is done by digging under them, filling the cavity with combustible materials, and covering the stump, after firing the materials, with turf, in the same manner that coal-kilns are covered. The fire will in a short time effect the entire destruction of the stumps—even the long lateral roots—unless the soil is very humid, in which case the burning should be undertaken during the dry weather of summer. If the dirt is excavated a few weeks before the burning is undertaken, the operation will be more speedily effected. The ashes produced by the combustion will afford an excellent stimulus for the soil, and should be carefully applied as soon as the operation is completed. But in all cases where eradication by pulling is practicable, the stump machine should be used.—*Germantown Telegraph.*

For the New England Farmer.

LETTERS FROM MAINE---No. 5.

More Apple Tree Philosophy—Time of Pruning—Close Cutting Best—Why—How Nature Prunes, &c.

In pruning apple trees, in high northern latitudes, too much interference with nature must not be presumed upon. Nature ever strives to keep the proper balance between root and top, and in pruning or grafting it is dangerous to destroy that balance by depriving the top of its leaf-bearing twigs, to any great extent, at any one time. I do not regard the time of pruning as a question of so much importance as some of the correspondents of the *Farmer* seem to attach to it. Probably the worst season for pruning is between the middle of July and the fall of the leaf, as all the leaves are then needed to mature the sap for winter.

Careful observation has convinced me that in pruning, branches cannot be cut too closely. A dead, projecting knot is a dangerous appendage to a tree; as the sap which is left out of the range of circulation becomes soured, and poisonous to the tree, and when forced out of the dead part of the knot by the pressure of the circulating sap below it, it has the effect of coloring the bark black, giving rise to the mistaken notion that sap sometimes bleeds out of the living wood when wounded.

Nature sometimes trims living branches from trees, in the winter by pressure of snow or weight of ice, and in autumn by the weight of fruit on the branches. In both cases the whole knot is split out of the tree, making a large, deep wound, but one which generally heals rapidly, with less injury to the tree than commonly follows sawing off a branch. Nature therefore tells us that if we trim close, the season of the year is of no material importance.

In my fruit culture operations it took me a long time to learn the necessity of a large quantity of leaves. It is true that trimming away half the branches on a growing tree will have the effect of forcing larger quantities of sap into the remaining branches, and compelling them to make a larger growth. But it must not be inferred from this fact that the tree suffers no loss; for, in such instances all, or nearly all the growth will be on the top, the roots remaining stationary till the original balance is restored. Nature's efforts are always directed towards restoring the natural balance between top and root, and depriving a tree of superfluous, leaf-bearing branches—though sometimes necessary—always retards

the extending roots. I offer these suggestions by way of theory. If the theory be correct, the proper practice will naturally suggest itself to the reader. SANDY RIVER.

REMARKS.—We give the opinions of our correspondent as he has written them, not because we assent to all of them, as regards pruning, but because he seems to have given attention to the subject, and it is fair to lay these different views before the reader.

For the New England Farmer.

LABOR AS A CURSE.

MESSRS. EDITORS :—Man is so constituted, that labor enough to supply himself with food, by his own hands, is a condition which is beneficial to his health. We read in Genesis, that the "Lord God took the man and put him into the garden of Eden, to dress it and keep it." Does not dressing and keeping the garden imply labor? It does not seem that Adam was formed to live an idle life, as those who "place bliss in ease" understand it, but to take care of his garden like a good horticulturist. This took place before his fall, and of course there was no curse implied in his being located in Paradise to labor for his living.

There appears to be a palpable misunderstanding among theologians and others, about labor being inflicted on man as a curse for disobedience; I can put no such construction upon the verdict of the Almighty pronounced against Adam for his sin. God said, "Cursed is the ground for thy sake;" "in sorrow shalt thou eat of it all the days of thy life." "In the sweat of thy face shall thou eat bread till thou return unto the ground." Now, if any living man, with all his sophistry, can make it appear without doing violence to language, that labor was inflicted on man as a curse, let him shew himself with his evidence. All men are laborers, or ought to be. What is an idle man, rich or poor, more than a clam or snail? Mankind were designed for action, to fill different stations and work at different occupations; some are fitted to labor mentally, and others physically; there is as much necessity for the former as the latter; one class may be deficient in muscular power and endurance, and be well qualified for planning, while another class, with strong bones and muscular frames that defy fatigue, can execute what was not in the power of the other to perform. In New England, there are two classes of manual laborers; one class design and execute, which embrace a greater portion of our agricultural population, the other class are professed laborers who depend upon the income of their labor for a support. This latter class are practically the sinews of the country. What could old folks, lazy folks, sick folks, rich folks and other folks do, without this sturdy class of our practical population? It contains males and females of as good minds as any in the community, and their circumstances are often owing to causes which would not have disgraced any honest man.

The lucky aristocratic gambler, and conceited foppish student, may sneer at the laboring man, who is in reality of more value to the world than a cart-load of such coxcombs. Labor, as a health-improving exercise, is of more importance to the sedentary dyspeptic than all the medicine in the world. Three hours of manual labor a day would be a good as well as economical substitute for a voyage to Europe, or the West Indies, for sedentary gentlemen, who are troubled with bronchitis and ill health for the want of exercise. It appears that Saint Paul was an industrious man who "labored with his own hands." We read of his perils by sea, and perils by land, but do not read of his voyages to foreign lands as a remedy for inaction, his object being to enlighten the ignorant, reform the vicious and spread the gospel. Paul said in one of his epistles, "This we command you, that if any would not work, neither should he eat;" so it appears that he showed as little favor to idlers in any situation as any of our modern teachers. SILAS BROWN.

North Wilmington, 1859.

For the New England Farmer.

WHY DON'T THAT ORCHARD BEAR?

A correspondent of the *Farmer* inquires why his orchard, the trees of which have attained a large size, will not bear fruit? I do not presume to know the reason, but wish to suggest a fact or two which may bear upon the question. Trees bear soonest, and bear best, where the branches are nearest horizontal in their position. Leaning trees and crooked trees, I think, will be found to be the earliest and best bearers. The reason is, the directly upward flow of sap favors growth of wood and leaves, but not the secretion of matured material for the germ of the fruit bud. The flow of sap is an electrical phenomenon, and those who are familiar with galvanic experiments will see at once why the secretions from the sap are thus affected by position. There is generally a correspondence between roots and branches in point of position. Trees set too deep in the soil, produce a watery, unmatured sap, and trees set in a soil where the roots strike deep, will be likely to have tops with nearly perpendicular branches, and consequently prove unfruitful, till the size of the tree compels the branches to assume a more nearly horizontal position. Let our friend try the experiment practised by European orchardists, of bending down, and confining in a drooping position, some of the branches of his unbearing trees. J. S. SWIFT.

Farmington, Me., Aug., 1859.

CHAFING UNDER THE COLLAR.—A gentleman who has tried the plan successfully for five years, communicates the annexed method of preventing horses from chafing under the collar. He says, he gets a piece of leather and has what he terms a false collar made, which is simply a piece of leather cut in such a shape as to lie, singly, between the shoulders of the horse and the collar. This fends off all the friction, as the collar slips and moves on the leather, and not on the shoulders of the horse. Chafing is caused by friction, hence, you see, the thing is entirely plausible. Some persons put pads or sheep-skins under the collar; these, they say, do as much hurt as good, for they augment the heat. A sin-

gle piece of leather, like that composing the outside of a collar, without any lining or stuffing, he assures us, is better than anything else."—*Boston Journal.*

RUNNING AND TROTTING HORSES.

A writer, over the signature of "Hiram," in the *Spirit of the Times*, thus alludes to the distinction to be observed between running and trotting horses. He says:

I think it has been fully shown, by good authority, from experience in crossing the ass with the horse, that the sire gives the external form; although the mare brought the seed to life and perfection, still the creature to all outward appearance, is an ass; I contend, in order to have a good running animal, you must have a good running form, and to have a good trotting horse, you must have a good trotting form. I know, also, that there are exceptions to all general rules, and that horses trot and run in all forms; but that does not reach the case, or if it does, it makes no difference what we breed from, as far as form is concerned, for I hold that the form of a full-blooded running horse is directly the reverse of a trotting horse in many respects—some of them I will here notice. The legs, for instance, of the running horse, from the body down, should finely taper, with long yielding pasterns, high-reaching loin, and a long, small neck, and may be yewed at that. Now I hold that the above qualifications are essential to the running horse of good blood, and diametrically opposed to a good trotting horse. I will now give you what I consider the qualifications in the form of a good trotting horse, opposed to that of a running horse. His leg should be strong, holding its size well to the hoof, short, straight pastern, going from the leg into the foot, loin well filled, gently descending from the coupling to the withers, which should be thin and well raised, with a strong, well-proportioned neck, not too thick and chunky.

To Prevent Cats Killing Chickens, &c.—Miss Harriet Martineau, in the new London paper, "*Once a Week*," is publishing a very interesting series of sketches entitled "Our Farm of Two Acres,"—in one of which sketches she gives the following as a sure preventive against the killing of chickens or birds by cats:—"When a cat is seen to catch a chicken, tie it round her neck, and make her wear it for two or three days. Fasten it securely, for she will make incredible efforts to get rid of it. Be firm for that time, and the cat is cured. She will never again desire to touch a bird. This is what we do with our own cats, and what we recommend to our neighbors; and when they try the experiment, they and their pets are secure from reproach and danger henceforth. Wild, homeless, hungry, ragged, savage cats are more difficult to catch; but they are outlaws, and may be shot with the certainty that all neighbors will be thankful."

LETTER FROM MR. BROWN.

Attleboro', Mass., Aug. 10, 1859.

Messrs. Nourse, Eaton & Tolman:

Gents:—I was called here this morning to look at a farm with a view to its permanent reclamation, including a thorough system of underdraining. It belongs to a family, one of whom is a clergyman settled over a parish in Worcester county; two other sons are merchants in New York city, while a fourth, with an aged parent, abides at home to guide the plow and feed the kine, to subdue the waste places and make them teem with fertility, and blossom as the rose, and himself to remain one of the Kings of the soil, a position no less dignified, useful or honorable than his brothers have selected, and one of a class to whom the country must always look for defence and support in time of trial, and for those productions which go to make up the wealth of any nation.

With a discriminating judgment, and with great good sense, the minister and the merchants concluded to invest liberally of their surplus *in the soil*, not only with the hope that profit would come out of it, after many days, but that the homestead might be made attractive and beautiful, where themselves and their children could annually return and breathe the sweet odors of new mown hay, of the fresh flowers that nod over the babbling brook, and hear the familiar sounds that closed in the calm evenings, or woke the bright mornings of their early years. The same sound judgment that led them to these wise conclusions, also prompted them to apply to practical men for advice. I referred them to a strictly professional man, but they elected to abide by my decisions, and hence my reason for dating from this thriving and pleasant town.

The farm contains many natural advantages—has a sandy loam upland, beautiful meadows at the base of gentle slopes, and a cold, springy, rocky and repulsive pasture. But the outlets of the water-courses, and the indications given by the character of the vegetation which everywhere met the eye, left no doubt on my mind as to the course that ought to be pursued; so the lines were laid down, the principles of the process discussed and enforced, and diagrams of the whole plan were made of the rushes which grew luxuriantly upon the spot, and placed upon the ground under the shade of an old apple tree, showing the direction of the lines, their distances apart, and giving a distinct illustration of the whole thing.

I felt confidence in assuring my friends that one acre of the pasture reclaimed, would supply as much feed, and of a more nutritious character, than five acres now does, and that $50 per acre expended upon it, would give one of the safest

and most permanent investments they had ever made.

The farmer is receiving essential benefit from the operations of men engaged in commercial or professional life. If this project, for instance, is faithfully carried out, and is successful, it will afford a valuable example to the hard-working farmer, who feels as though he cannot engage in any enterprise where there is danger of loss,—and this feeling he will naturally have until he has experimented, or seen repeated trials by others. I have no more doubt of good results than I have of the most certain thing that has not already transpired.

I have been delighted with my visit here; not, especially, with anything very new that I saw in the cultivation of the soil, or of marked excellence in buildings, stock, or implements, but in the pure tone of feeling and the sweet affections that exist in country life. Here were gathered portions of four or five families from various sections and occupations. They had come back to the old homestead to visit the scenes of earlier days, to renew and strengthen fraternal attachments, and, by occasional intercourse, perpetuate them to the end.

The twilight had gradually given way to the deeper shades of night, and the peculiar sounds of an evening in the country were hushed—the plaintive note of the whippoorwill had ceased, (for his time of mating and loves had gone by, though he still lingered in his accustomed places,) when the family all came from their respective duties and "sung a hymn." Then rose the clear and affectionate thanksgivings and petitions of the minister; to Him in whom we live and move and have our being. He plead for the "stranger" that was within their gates, and for his profession, that it might be blessed and prospered, and made fruitful in the earth. None were forgotten, the aged, middle-aged and the young.

How is it possible that blessings shall not rest upon such a household, and that peace shall not remain with them to the end?

Truly yours, SIMON BROWN.

PRESERVING GRAPES FOR WINTER.

While grapes may be grown in such profusion and with so little labor, it is a little remarkable that a supply for every household in the country is not secured, not only in the regular season of them, but to last until spring. There is no trouble in keeping grapes through the winter as fresh as when they are first gathered. In seasons when other fruit is scarce, no greater luxury can be enjoyed than a dish of fresh grapes in winter.

In gathering grapes for keeping fresh, they should be allowed to hang on the vines until they are fully ripe, and then gathered with care, to avoid bruising. The fairest bunches should be chosen to put away, and with a pair of small scissors all defective and bruised berries should be cut off. They should then be placed in boxes well ventilated, and remain for a few days, when they should be packed in boxes holding six or eight pounds each, first sprinkling the bottom with a layer of mahogany saw-dust, or what is better, turning chips, then a layer of grapes, and then saw-dust alternately to the top. It is not important that the box be tight, it is better that it should not be. These should be put in the coolest place in the house, where the air is dry. On the approach of freezing weather they may be removed to upper shelves suspended in the cellar, or in any dry room where the temperature is as near the freezing point as possible. Some recommend cotton batting in place of the turning chips, but we have always been most successful with the latter.

A most valuable addition to our old stock of grapes has been made in several new varieties. Some of them are well suited to the various latitudes of the United States up to the 43d degree North.

Every homestead should have its half-dozen vines, at least of the kinds best suited to the locality—trained to the out-houses, where they occupy no room. These, if taken care of, will afford an abundant supply for the family during the grape season, and leave a good store for winter.—*Valley Farmer.*

MANURING GRASS LANDS.

In no department of farming is there a more radical call for improvement, than in the management of our meadows and pastures. Good grass crops are at the very foundation of good husbandry. Land which will produce these largely, will produce grain, corn and roots—will sustain a good proportion of stock, and thus furnish within itself the means of keeping up and improving its fertility. These assertions are seemingly so self-evident, that we must beg pardon of the intelligent reader for referring so frequently to the subject. And yet the intelligent reader who looks, perhaps, over his own farm, certainly on the farms around him, will see that no word is out of place, which can attract attention to the question before us. We shall now remark simply on top-dressing meadows—the present being a favorable season for the operation.

For improving the yield of grass, and adding to the permanent fertility of the soil, we cannot do better with our fine manure, than to apply it after haying as a top-dressing to dry land meadows or pastures. It will give new vigor to the growth of grass, and increase the thickness of the sward, so that even were it to be plowed the next season for a grain crop, the manure could not be better timed or applied. For meadow or pasture the product would be largely increased both in quantity and quality. On wet land, draining should precede the application of maure, as no great benefit can be gained from maring a soil saturated with water during the wet seasons of the year.

On loamy soils the different composts of muck with manure, ashes, lime, guano, etc., will be found valuable, and an addition of plaster to the compost cannot well come amiss. For mucky

soils, manure composted with loam or clay will be appropriate, and these alone—as is the case with muck on upland—will be found a valuable means of improvement. Bone manure, when it can be procured, is an extremely valuable fertilizer for grass, and no farmer should neglect to employ in a broken state, all the bones within his reach upon the farm.

We have seen an account of an experiment where dry straw spread thinly over the surface of a meadow, after haying, produced a large increase in grass—acting, perhaps, as a sort of mulch to the roots, preventing the effects of drouth, adding also a light manuring as it decayed. Turf ashes act very beneficially upon grass land, and some farmers use them largely as a top-dressing for meadows.—*Country Gentleman.*

For the New England Farmer.

CORN-STALKS---POLLEN---SUCKERS.

In the *Farmer* of July 30, there is a communication from Mr. J. M. Ives, on the practice of cutting corn stalks—it appears to me like good sense. I cut the tops from my corn.

Every farmer ought to recognize one great truth, that there is an economy, wise beyond conception, in the Great Producer, that what appears to us superfluous in plants is not so in fact. The effort of everything is to produce its own kind with the least waste. There must be a sufficient amount of leaves and stalks to receive atmospheric influences before the great work of producing seed is done; when this is finished, and the plant comes to maturity, all the seed-making elements leave the stalk and concentrate in the seed.

I have said to some of my neighbors that grass did not grow, (in one sense,) for his horse or mine, but to produce seed and drop it—when that is done, the stalk is straw, and the man that cuts it after the seeds have matured gets straw. I try to cut it when the seed-producing elements are in the stalks, just before it can drop out. If we want the seed of corn in its greatest perfection for planting, we must let the stalks, suckers and all turn to straw.

I love to contemplate the growing corn, "first the blade, then the ear, after that the full corn in the ear." The main spindle runs up and drops its pollen, so that the slightest puff of air will shake it out to the beards below. If the earth can produce more, the corn suckers and will have one ready just in time with its golden dust to fructify two inches more of the ear; if there is greater fertility, another will be in time, and beards will continue to push out for additional length, and so on until the ear is full of corn. If we see suckers starting freely from the young corn, we may expect long ears—if without suckers, short ears and snouted.

A widow employed a faithful Irishman to do the work on her place. He planted corn too close in a very rich and confined place—it ran up tall. Michael, to let in the sun, cut the stalks as they were on the point of dropping their pollen. I passed it daily, and was much interested in watching the result. The beards came out and piled around the top of the ear like a bunch of curled hair, and there remained for about fifteen days in the scalding sun of a confined place, fresh as the day they came out. Now the whole energies of the corn were put forth to produce suckers to rectify the mistake, and it did work lively, for in the time mentioned above, it got them out and dropped pollen on patient waiting beards, every fibril was fructified at about the same time, for they were all out waiting, and the corn went on with its work, and it being a good season and a warm place, there was tolerable corn in spite of Paddy.

CALEB BATES.

Kingston, Mass., Aug., 1859.

EXTRACTS AND REPLIES.

THE STAR-NOSED MOLE.

Perhaps you, or some of the correspondents of the *Farmer*, can give information in regard to the name, habits, &c., of the animal I shall mention. A few mornings since I picked up in the barn-yard, a little animal dead. It bore the appearance of being killed by a cat. At first sight I supposed it to be the common mole, but further examination proved it to be different. Its body was plump and round, about 5½ inches from nose to end of tail. Tail stout, 2½ inches long, and sparsely covered with coarse hairs or bristles; hind legs similar to those of a mouse, but stouter; forward organs of locomotion were two large flat feet, in shape like a man's open hand; these were joined to the body without any arm or leg, quite widely separated. Head and snout like a hog, and around the circumference of the snout were numerous cartilaginous joints, one-eighth inch in length, pointing forward; could discover no ears; eyes very small, small as a pin head, black and deeply sunken, teeth very small, one convex, one in front upon both upper and lower jaws. Body covered with fine, thick, glossy black fur.

ALBERT WHEELER.

Somerville, Mass., 1859.

REMARKS.—The animal described above was, undoubtedly, the "Star-Nosed Mole." It is not uncommon in most parts of New England, but spends most of its time underground.

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REMEDY FOR GARGET IN COWS.

In your August number, E. P. Chase, of Deerfield, N. H., over date of June 18, says:—"I have found horseradish, cut and fed in potatoes the same as garget root, a good remedy for gargety cows." I have found potatoes without the horseradish root a good remedy for the garget in cows, when fed liberally to them. The disease known as the garget is but an inflammatory action, more or less general in the system, and in cows the udder is usually more deeply involved in the difficulty than any other part of the system, because it is more sensitive, and more easily inflamed. What is usually called garget, when the udder is swollen, is but seated inflammation in the suffering part, and any food calculated to produce a free discharge from the intestines and reduce inflammation, is serviceable to the animal. In severe cases of inflammation in cattle, whether general or local, I have used, with good success, the hydrate of potash, one ounce dissolved in three pints of water, and given from one-third to one-half of a glass

two or three times in a day, as the condition of the animal required. J. G. W.

Aug. 6, 1859.

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HOW TO MAKE PICKLES.

When cutting from the vines, leave half an inch of stem attached to the cucumber; pack them in a stone jar, being careful not to break the little prickles which cover them; add sufficient vinegar to thoroughly immerse the whole, and repeat the process from day to day till you have obtained the quantity you desire; then add a small bag of mustard-seed and cloves, covering the whole with horseradish roots, scraped and split into small pieces. Should any traces of a scum appear, add more horseradish immediately, as a good supply of that is a sure preservative, and "A Lover of Good Pickles" will find them as nice at the end of two years as one.

Please inform me where I can obtain the fullest information with regard to the cultivation and varieties of strawberries. A FRIEND.

Concord, N. H., Aug., 1859.

REMARKS.—You may find a little work on the cultivation of the strawberry, at the bookstores, by R. G. Pardee.

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CURE FOR A BREACH.

Take a piece of half inch board, about the size of a man's hand, round off the corners, and line the side next to the colt with lamb's skin with the wool on, to prevent chafing the breach; attach this to a soft surcingle, and buckle it closely around the colt, with the board directly over the breach—then attach two soft cords to the back part of the board, passing them through between the hind legs, and fasten one of the cords to a girt on one side of the hip, and the other on the other side, which will keep it to the place. Wet the wool twice a day with strong liquor of white oak bark. This will effect a cure in three or four weeks. A. BRIGGS.

Deerfield, Mass.

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APPLES AND PLUMS.

Will fruit and plums improve in size and quality by removing the tree, bush or vine upon which it grows natural or wild, to a warmer climate? A SUBSCRIBER.

Haverhill, N. H., July, 1859.

REMARKS.—They would be quite likely to, if all other things were favorable.

For the New England Farmer.

COLLECTING CREAM AND CHURNING.

I agree with those of your correspondents who say that white specks are caused by dried cream, formed on the top of the milk by exposure to a current of air in dry warm weather—I say *dry* weather, for this crust is never formed in damp weather—neither am I ever troubled with specks in damp weather; I do not say that sour milk is never found in butter, but it is seldom the case where cream is properly cared for, and sour milk is not adhesive, and easily removed from the butter by washing. Any one can decide as to the nature of the specks by experiment; the specks formed by sour milk will not rise on water, but those caused by dried cream, will be found on the water after washing the butter. I have proved them to be cream by simmering them to oil, and by other experiments. I think where milk is kept from direct exposure to the air, you will not be troubled with them if the dairy is properly attended to. I will just say that uneven salting is always the occasion of striped butter. I always churn often, whether I have more or less cream.

A READER OF THE FARMER.

Waterbury, Vt., July, 1859.

EDITORIAL CORRESPONDENCE.

VISIT TO MONTREAL.

Montreal, L. C., Aug. 18, 1859.

MESSRS. NOURSE, EATON & TOLMAN.

Gents:—I came here to attend a *trial of agricultural machinery and implements*, projected by the progressive spirit of the Lower Canada Board of Agriculture. The trial has been continued during three days, on the farm of JAMES LOGAN, Esq., three miles from the city. The machines and implements presented were not numerous, and full one-half the whole were from the States. There were some six or eight mowing machines, nearly all of them different modifications of the Ketchum and Manny, four or five reapers, including one with a self-raking attachment,—that is, to rake the grain from the platform of the machine into bundles—some hay-rakes, one tedding, or hay turning machine, three stump pullers, several threshing machines, root and hay cutters, quite a collection of plows, a few harrows, &c., &c.

The mowing machines were set in motion on Tuesday, and operated well. The Ketchum, with Nourse, Mason & Co.'s modifications, cut its acre in 38 minutes; Wood's Manny in 49 minutes, and Moodie's Manny in 52 minutes. The field was level, but laid into beds of only ten feet in width over its whole extent. The grass was second crop clover, and about a ton to the acre. Moodie's machine lost a pin and was detained a few minutes, and Nourse, Mason & Co.'s caught a stone which bent one of the teeth, detaining them six minutes. Wood's Manny, with two wheels, worked steadily, and did it with apparent ease for a pair of horses of less than twenty hundred. The reapers also did good work, if cutting a *large proportion* of the grain and gathering it into bunches may be considered good work. The self-raking reaper cut an arpon, or French acre, which is a little less than our acre, in 29 minutes. The other reaper required a man to ride on it and remove the grain at intervals with a fork, and occupied more time. Neither of the reapers collected the grain sufficiently to make careful raking, either by horse or hand, unnecessary. No clean and careful cultivator would think of

eaving so much upon the ground as I saw remaining after the grain was tied into bundles. If these trials were fair examples of their usual work, the necessity for raking after reaping will prove a considerable drawback upon the usefulness of the machines. It was wonderful to see the self-raker cut down a very heavy barley crop at the rate of an acre in 29 minutes, and claw it from the machine and lay it in bunches ready to be tied up!

The trial of plows attracted much interest, and was going on through two days. The plow-field presented to me an original scene. The judges were composed of portions of the English, French and Scotch population,—while to these were added among the competitors and spectators, the Irish and Italian. Of course, there was a Babel of languages—but nearly all were masters of two tongues, the French and English, and I observed that when two persons met, both speaking English well, and became earnest, they grew eloquent in French,—while those not caring a snap for the decalogue, when they wanted to give a peculiar unction to their expressions, "swore worse than our army did in Flanders," in pure English. How is this? Has the French language more power in the expression of *feeling*, and the English in *denunciation*, that the common people resort to one and the other at will, or did my imperfect knowledge of the French fail to catch monsieur's vocabulary of oaths? But the queerest of all, was, when the impassable and pertinacious Scotchman came in contact with the lively and voluble Frenchman, both resorting to common English ground, and discussing the merits of their favorite implements. I shall give no example—it would require the full power of the ablest philologist in the land to do it justice.

Nearly all the land in this region is a clay loam, and therefore does not call for so extended a variety of plows as New England soils. Still, one form of plow will not do good work in all places here. Most of their plowing is done in the *lap furrow* form. For their grain crops they plow in August and September, and leave it until spring—then sow upon the furrow and harrow afterwards. I suppose they must harrow across the furrows, because the grain seems to grow in lines, as though the seed had fallen into the channels on the edges of the furrows. Most of the plows of the country presented were the Scotch—all iron and about ten feet long! The beam is short, curved and graceful; the point very long and slender, the handles some five feet in length, ending in short wooden pieces—sometimes of mahogany—for the hands. I saw several of them at work. They require a stout pair of horses, who move very slowly, plowing only one acre each day and that rarely more than six inches deep. A Scotchman at my side inquired,—"How much is your average day's work?" I replied,—"With such a team, on similar land, and with one of our plows adapted to the soil, we should plow two acres at least, nine or ten inches deep, being ten hours in the hooks; and that in a cool day and everything favorable, two acres and a half were not an uncommon day's work." The Scotchman did not say that he was incredulous, but his nationality would not allow him to yield. "Ah," said he, "but ye canna do it so weel as we."

The English and Frenchmen saw graces and virtues in the American plow that did not commend themselves to the Scot. They clustered around the neatly-made and symmetrical plows from the house of Nourse, Mason & Co., and scanned their work with evident interest and satisfaction. Mr. Holbrook, of Vermont, was present, and upon a call from the chairman of this department of the trial, put several forms of his mould-board "through their paces." and briefly explained, to the members of the Board and spectators, the principles upon which they were constructed, and why the varying soils require differently formed mould-boards. The gentlemen composing the Board, and the intelligent farm-managers who were present, gentlemen who own and direct the affairs of large estates, but do not labor with their hands, seemed to appreciate the force of his remarks, and I subsequently learned that the judges awarded to the Universal Plow their highest prize, though not as a plow coming in competition with others.

Perhaps no part of this field trial proved so satisfactory to our Canadian brethren as that of the plows; they did not hesitate to express in warm terms their obligations to the States men for coming so far, and contributing so much to advance the cause they are striving to promote.

Several threshing machines were on trial, all working well, and one of which threshed and cleaned up the grain from 100 sheaves of wheat in 8½ minutes.

Three stump pullers were tested, and one of them, introduced by Mr. George Kenny, of Milford, N. H., bore off the palm, and proved itself an implement of astonishing power.

Yours truly, Simon Brown.

Ditching Machine.—The Executive Committee of the Illinois Central Railroad Company, offer $500 for the best ditching machine for open ditching. The party claiming the offer must exhibit the practical working of the machine at the same places and times with the steam plow, and the Company above mentioned will transport the machine over their road free of cost.

For the New England Farmer.

THE AMERICAN ROBIN.

FRIEND BROWN:—Perceiving your great fondness for birds, and love for the beautiful in nature as well as in things of art, and being aware, also, of your willingness to allow free discussion upon all subjects that relate to agriculture and horticulture in the *Farmer*, I venture to offer a plea in behalf of the robin.

In the issue of June 4th, a correspondent remarks, "I do not see as any of the advocates for the preservation of robins advance one idea in their favor, except their singing; no injurious insect do they prove that they destroy. I will admit that for fructiferous birds nature requires some animal food, but the robin never takes any except the angle-worms, where they can be found."

This is a strong assertion, but as he says of the "advocates for the preservation of the robins," proof is wanting to confirm the assertion that "the robin never takes any (insects) except angle-worms." As an advocate for the robin, I will furnish facts of a recent date given by Prof. Jenks, employed under the patronage of the "Massachusetts Horticultural Society."

The plan adopted for the investigation of this subject required that robins should be obtained at day break, mid-day and sunset, both from the village and the country, that their crops should be examined and the contents thereof preserved in alcohol. Beginning with the first week in March, this investigation was continued almost daily until December. Not a particle of vegetable matter was found down to the first of May, but insects in great abundance, both as to quantity and variety of species, for the robin is a voracious eater, as confirmed by an experiment made in Cambridge, last season, which was published in the papers. Nine-tenths of the food during the time indicated, consisted of the larvæ identified as *Bibio allipennis* of Say, as confirmed by Dr. Fitch, of New York, and a Russian entomologist in Washington. From one hundred to two hundred of these larvæ were frequently taken from a single robin, and were usually the only food found in the crops.

Thus did Prof. Jenks demonstrate that the robin consumed daily during March and April, from one hundred to two hundred *Bibio* larvæ, thus rendering an incalculable service to the tillers of the soil. The robin seems to be peculiarly fond of these worms.

The *Bibio* larvæ were not seen after the first of May, from which time to June 21st a variety of insects and worms were found, including spiders, caterpillars and beetles of the family *Elatevidæ*, the propagators of the wire-worm, so destructive to corn. The earth-worm, or angle-worm, as it is also called, was found to be a favorite kind of food for the young, but sparingly eaten by the parent birds.

From June 21st, strawberries, cherries and pulpy fruits in general were found, but in a majority of examinations, were intermingled with insects. Those shot remote from the garden and fruit trees were found to contain more insects and less fruits, leading the Professor to conclude that "the robin is not an extensive forager,"

The mixed diet of the robin was found to continue until October; the vegetable portion, during August and September, consisting chiefly of elderberries and pokeberries. During October, grasshoppers and orthopterous insects generally furnished the diet of the robin.

Early in November, the robin migrates to the South, and even earlier, most of them. Some of them, however, remain through the winter, subsisting on bay-berries, privet-berries, juniper-berries, mountain-ash-berries, &c.

After such an exhibition of facts in confirmation of the robin's habits, may it not be hoped that its accusers will no longer persist in asserting that the robin eschews all insects and worms, except angle-worms, which your correspondent says he "gulps down as if he loathed it, like a child taking Epsom salts," and "only to gratify his vicious destructiveness." The cowardly robin, it is also said, "locates near dwellings," interfering, it would seem, from the remarks of your correspondent, not only with the fruit business, but the traffic in angle-worms, whose "standard price" in certain localities is "one dollar a gill." These would be strong reasons for repealing the law, for protecting birds, including the robin, were it not that there are many more, and much stronger reasons for its preservation, in view of the incalculable good which it does.

He who seeks for good, unmixed with evil, in the things appertaining to this life, I fear will look in vain. Before pronouncing sentence of utter condemnation upon a neighbor, or a robin, because a sinner, on the one hand, and a fruit-eater or poacher on the other, let the question be mentally put, "Who am I, that thus condemneth because of evil?" Let him that is without sin cast the first stone. Weigh the good and the evil, and see if the former does not preponderate in general, and with regard to the robin in particular.

CHARITY.

LETTER FROM MR. BROWN.

MONTREAL lies on the west bank of the St. Lawrence, which is nearly two miles wide opposite the city. It is narrow, but stretches along the bank of the river for a long distance, and contains a population of some 80,000 souls. This population is greatly mixed, and each class is ever striving to make prominent and perpetuate its own national characteristics in customs, manners and language. The struggle, however, is between the English and the French—there lies the tug of war. Their differences often find expression, and will eventually lead to a distinct local government, in the two provinces of Lower and Upper Canada, probably, before they are known as the *State of Upper Canada*, and the *State of Lower Canada*. The feeling strongly prevails with many intelligent persons, that the Canadas will yet become a part of the cluster of United States.

The buildings in the city are mostly constructed of stone, and the dingy walls, full of crevices where the plaster has been washed or knocked out, together with the open cellars and blan-

walls where buildings have been destroyed by fire, give the city an unthrifty and dilapidated appearance. The streets and sidewalks are narrow, and there are few shade trees to temper the solar rays or the parching radiation from the heated stones. The commerce of the city is inconsiderable, though the quay or single wharf extending all along the easterly side of the city, presents at certain seasons quite a lively appearance of business. The prevailing religion is Catholic, so that there are numerous nunneries, convents and churches belonging to that sect. The Great Cathedral, with its bell weighing more than twelve tons, and its turrets 250 feet high, is always open, where its votaries assemble, bow and cross themselves, and utter their Ave Marias with all seeming fervor and unction. A thousand things constantly indicate that I am not among *my* people—the language, dress, coins, implements of industry, the presence of soldiery, the carriages, and especially the carts and vehicles used for conveying loads. Last evening I was wondering how they could place a hogshead of molasses on one of their drays, but, while leaning over the iron railing on the quay this morning, the mystery was solved. This dray is made of two pieces of timber, each perhaps fifteen feet long, six inches wide and three thick; these are set edgewise about eighteen inches apart, on a pair of common horse cart wheels; the shafts are long and slender, and attached to the end of those pieces next to the horse by a round iron bar which forms a hinge. In preparing to load a hogshead of molasses the hind end of the long pieces is depressed so as to touch the ground. One end of a rope is then made fast forward and brought back under the cask. Another dray is then backed up, the rope attached to it and the horse started. In this way the hogshead is rolled to the centre, or over the axle-tree, is then canted round endwise, and is ready to be driven off. In unloading, the dray is tipped up as in loading and the cask slid off. This operation required the aid of six men and two horses to load each cask. Only one cask was placed upon each dray.

There is another class of the population that I have not mentioned—that is, Indians. How numerous they are I have not learned. The women and girls frequent the hotels to sell their bead work; one of them touches my shoulder now to call my attention from writing to her basket of wares. They are generally tolerably well clad, and are modest, but not graceful in form or motion. It will not be long before these sons and daughters of the forest will be lost amid the other races that are rapidly whelming over them.

Some of the places of interest to which the attention of the traveller is called in this city are the French cathedral, the Bonsecours and St. Ann's Market, the Grey and Hotel Dieu Nunneries, the Convent of the Sisters of the Sacred Heart, the Academy of the Sisters of the Congregation of Notre Dame, the Theatre Royal, Champ de Mars, &c. In one of the public squares stands a dilapidated monument to Nelson, England's great naval hero, who received a fatal shot at the battle of Trafalgar. The Lachine canal is a fine work, but the *Great Victoria Tubular Bridge*, across the St. Lawrence River, *one mile and three-quarters in length*, is the crowning work of art and science combined, perhaps of this or any other country. I had the pleasure of walking through nearly a mile's length of the tube that is now finished. The tubes are 22 feet high and 16 feet wide, giving room for two tracks. Every part of the bridge is iron, resting upon piers constructed of a marble stone brought 20 miles from the interior. One of the spans between the piers is 330 feet in length, and the top of the tube is 82 feet from the water! There is nothing whatever to support this but where it rests upon the pier at each end, and then its own sustaining power. The engineers and builders of this stupendous work are Messrs. A. M. Ross and Robert Stephenson, of England. It is estimated to cost $7,000,000.

The citizens of Montreal ought to be a very pious and exemplary people, for they are surrounded by the *names* of saints, at least. Almost everything bears the name of some patron saint—the river, churches, convents, nunneries, charitable institutions, streets, lanes and markets. St. Michael, St. Paul, St. Patrick and St. Ann, with others, more than I ever supposed were contained in the calendar, are emblazoned pretty much everywhere except on the lamp-posts and paving stones! I have just been through the principal markets, and find them well supplied with meats and vegetables.

In closing my letter, it affords me pleasure to acknowledge my obligations to the President and members of the Board of Agriculture for kind attentions to our little party "from the States," including JOEL NOURSE, Esq., of Boston, and the Hon. F. HOLBROOK, of Vermont, and to give their names and address permanent record in your columns as follows:

J. O. A. STURGEON, President.....Terrebonne.
E. J. DEBLOIS, Vice President.....Quebec.
JOHN YULE.....Chambly.
Major CAMPBELL.....St. Hilaire.
J. C. TACHE.....Quebec.
P. E. DOSTALER.....Berthier, E. H.
B. POMROY.....Compton.
R. N. WATTS.....Drummondville.
J. PERRAULT, Secretary Board Agriculture.
T. CHAGNON, Assistant Secretary.

I also found pleasure in meeting an old acquaintance, the Hon. WM. MCDOUGAL, M. P. P., and former editor of the *Farmers' Journal*, at Toronto, and in becoming acquainted with JAMES

ANDERSON, Esq., editor of the *Journal of Agriculture*, Montreal, and with WILLIAM EVANS, Esq., of St. Ann's Market, Seedsman, &c. Mr. Anderson is greatly interested in the subject of drainage, drew the act that is now in force in Scotland, and got it through Parliament, and was for a long time the Inspector General of Drainage in that country.

Truly yours, SIMON BROWN.

For the New England Farmer.

THE CUTTER STRAWBERRY.

This is a day of new things, and it is common to hear of a new strawberry better than all of its predecessors.

This is a variety of strawberry not generally disseminated, and but little has been published about it. It was first taken from the wild pasture, and is a native seedling. I named it Cutter, in honor of the gentleman who first cultivated it, some six or eight years ago. It is of excellent quality, possessing the wild strawberry flavor largely. Berries of very even size, many of them four inches in circumference; color, light red; form, obtuse cone, with a neck; easy to hull; fruit stems very long.

I gathered fruit from the plants in June and July last for thirty-five days in succession, or eight to fifteen days longer than the other varieties cultivated on the same soil, and precisely the same cultivation; the Hovey Seedling, Boston Pine, Jenny Lind and Early Virginia. The two last-named varieties were of small size. The two former produced some very large berries, but as a whole, were of very uneven size. None of them produced so much fruit by at least one-half as the Cutter.

I had partly covered with strawberries about one-fifth of an acre, on which was an orchard of apple trees, some of them four inches in diameter; 150 grape vines, part of them in bearing; 130 currant bushes in bearing; 50 hills of rhubarb of the improved sorts, walks, &c. About one-third of the ground was planted with the Cutter, the other two-thirds was occupied by the afore-mentioned kinds. The plantation produced 500 boxes or quarts. Had the whole ground been occupied with the Cutter 600 quarts would have been a fair estimate, considering their relative bearing qualities.

My soil is sandy loam and gravel. I prefer leached ashes as a fertilizer, well mixed in a deep mellow soil. It will pay to make the soil two feet deep. August and September is a proper time to set out the plants, and if so set, much fruit may be obtained the following year.

I have Wilson's Albany, Longworth's Prolific, McAvoy's Superior, Scott's Seedling, Peabody, and Brighton Pine. All of them are growing well, but have not fruited much, having been planted in the spring.

The Cutter strawberry was shown at the Massachusetts Horticultural Exhibition, four weeks in succession—two weeks longer than any other variety. The committee thought it very promising.

J. W. MANNING.

Reading, Mass., 1859.

NEW PUBLICATIONS.

CAMPBELL'S AGRICULTURE. A Manual of Scientific and Practical Agriculture, for the Farm and the School, by J. L. Campbell, A. M., of Washington College, Lexington, Va. With numerous Illustrations. In one volume. Price $1,00. Philadelphia: Lindsay & Blakiston; Boston: A. Williams & Co.

The introduction of agriculture, taught both as a science and an art, in our public schools, has long been advocated by the editors of the *N. E. Farmer*. This treatise is intended to supply the want of schools, in all parts of our country, of some introductory work, which shall give simple explanations of chemical terms and principles, applicable to agriculture, and also practical directions for their application to the actual culture of particular crops. Besides the chemical definitions, which seem to be based mainly on Stockhardt's Principles, and so are of the best authority, we have useful directions for the cultivation of crops in general, and of Indian corn, wheat and oats, potatoes, tobacco and cotton, in particular.

The book is not "sectional," but supplies a want felt at the South, of a work which shall include their peculiar crops, as well as the great staples of the North and West.

The chapter on Animal Physiology seems well digested and arranged. Each chapter contains, at its close, questions designed for the use of teachers in the instruction of their classes.

On the whole, this book is interesting to the general student of agriculture, and well adapted to general use in schools. We are glad to see from the southern section of the Union, evidence of increasing interest in agricultural science.

For the New England Farmer.

ILLEGAL TRADE IN MILK.

MR. EDITOR:—Having repeatedly seen the fact mentioned in your paper and elsewhere, that a law was passed by the Legislature to the effect that milk must he *bought* as well as sold, by wine measure, I supposed that there would be a change in the size of the cans, or at least in the price of the milk; but no! eight quart cans—beer measure, of milk, are still bought of the farmers and sold for over nine quarts! Is this right? Should hundreds of poor farmers be cheated out of their hard-earned money, simply to gratify the avarice of the few milkmen? Certainly not! Will not some of our enterprising farmers, who love their rights, attend to this matter, for we can plainly see that the milkmen do not respect the laws.

South Groton, Aug. 13, 1859. TRUTH.

WINDSOR COUNTY, VT.—The Windsor County, Vermont, Agricultural Society will hold its fourteenth annual Fair at Woodstock, September 28, 29 and 30. JOHN L. LOVERING, Hartford, President; LORENZO HUNT, Woodstock, Secretary.

DESIGN FOR A COUNTRY HOUSE.

We herewith present a design for a bracketed country house of two and a half stories. This is the fourth of the beautiful series designed expressly for our columns, by GEORGE E. HARNEY, Esq., of Lynn, and will be found to combine elegance and comfort, with cheapness. Our engraver, in transferring the design to wood has omitted a couple of large sky-lights in the roof which serve partially to light the attic chambers, and add much to the appearance of the building. It consists of a main body and an ell; the main house is square in plan, and measures 36 feet on each side; the ell, containing kitchen and its offices, is 18 feet by 26, and one story and a half in height.

The disposition of the several apartments of the house is as follows:

The front entrance porch, No. 1, opens into a vestibule, No. 2, 5 feet by 9; from this vestibule we enter the parlor, No. 3, which is 18 feet square, and contains a good sized closet.

At the farther end of the vestibule, a door, the upper panels of which may be glazed, opens into the staircase hall, No. 4; this hall contains stairs to the chambers above, under which is a flight leading to the cellar, and opens into the following rooms:

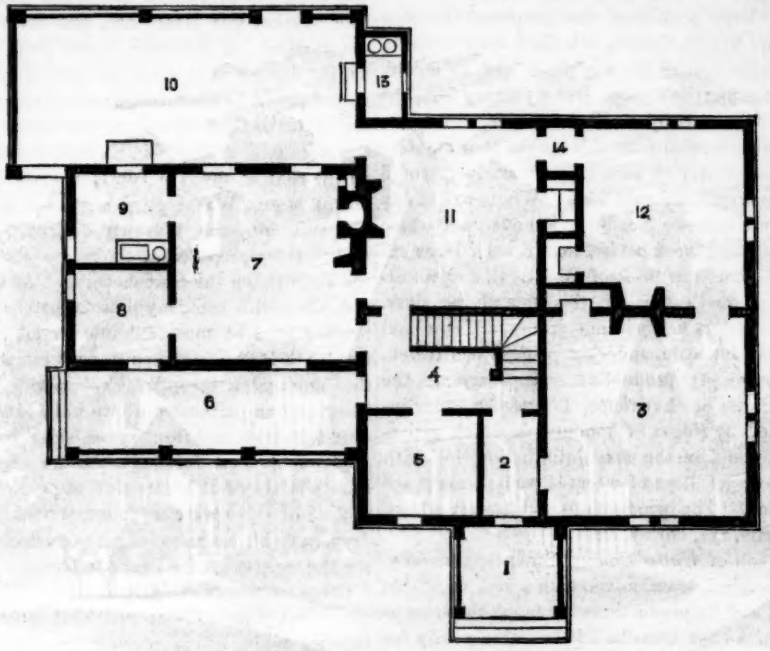
No. 5, office or library for the master of the house, so situated as to be convenient to the door opening upon the recessed veranda, No. 6; No. 7, kitchen 16 feet square; No. 8, store-room 7 feet 6 inches by 8 feet; No. 9, pantry 8 feet square, containing pump and sink, and leading into the private yard, No. 10. This yard is to be enclosed by a lattice fence 7 feet high.

No. 11, living room, 15 feet by 16, containing a large closet, and communicating, by means of a passage way, No. 14, with the family bed-room, No. 12. No. 13 is a privy opening into the enclosed yard.

The second story contains three large chambers and a child's bed-room, besides the hall and several closets in the main body, and a servant's bed-room, a large clothes press, and a bathing-room in the ell.

The third story, or attic, furnishes room for three large bed-rooms and numerous closets.

Construction.—This house is to be constructed in the same manner as those we have before offered, namely, vertical boarding and battens for the outside covering, and plain finish with walls prepared for papering for the interior. All the lower windows of the main part are to be shielded by hoods 2 inches wide. The roof projects



PLAN OF THE FIRST FLOOR.

three feet all around and is supported on plain 3½ inch brackets.

Height of first story 10 feet; height of second 9 feet. The cost of the above house would be from $3300 to $3500.

CULTURE OF BARLEY.

This grain is raised to a greater or less extent all over New England, and we think ought to take the place of hundreds of acres that are devoted to oats, as it is better adapted to seeding down land with, than oats, requires less seed, ripens as well, and is admirably fitted to our short, hot summers,—the average product will be nearly as much as oats, and when harvested, is worth a third more for horses, hogs, poultry or cattle. No grain makes a sweeter and more nutritious bread, to be eaten while it is warm. The celebrated Warren Hastings once said "that it is of the greatest importance to promote the culture of this sort of grain—it is the corn that, next to rice, gives the greatest weight of flour per acre." The cow-keepers about London cultivate it as spring food for their milch cows. The Romans used to cultivate it extensively; made the meal into balls, and fed their horses and asses with it, which was said to make them strong and lusty.

Barley should be sowed early, on warm, sandy or gravelly loams, rather than on alluvial soils. Although a northern plant, like the Indian corn, it loves the heat of our glowing summer days. We have seen fine crops of it on our granite hills, growing erect, without weeds, and yielding thirty to forty bushels per acre,—and the hot, morning cakes made from good samples of it somewhat excite our gastronomic desires even now! Great care should be used in the choice of seed. It should be of a pale, lively color, and the grains should be plump and fair. Such seed will throw up strong, healthy stems, capable of resisting untoward changes of the seasons, and result in producing a good crop. In England it is often sown as food for sheep, and is said to be far more productive than rye, as it admits of being fed down every few days during the summer. If sowed early, and intended for seed, it may be fed off in the first part of the season, without injury to the crop.

TOADS.—Toads, in common with many other reptiles, cast their skins; but who has ever found the old coat of a toad? He does not leave them lying about, like the unthrifty snake. No indeed; conscious that second-hand clothing is not in demand among the animal democracy, he rolls up his old coat in a pile, and when this is accomplished, packs it away by swallowing it. This is in nowise a suggestion to others to follow his example, but clearly proves our despised friend to be an excellent economist, as well as our benefactor in destroying insects, and should entitle him to respect and long life.

RECOLLECTIONS OF TRAVEL.

By a large portion of the people of the New England States, Canada is looked upon as an inhospitable, out-of-the-way place, and as a cold, rugged, unfertile region. But a journey from the lakes to Quebec, by the St. Lawrence, with an occasional diversion from this noble thoroughfare into the country on each side of the river, would at once dispel any such idea. We never saw a more fertile-looking country, nor one upon which the crops appeared better, than upon a large extent of land northwest of Montreal, and for almost an equal extent on this side of the river. The country is flat, without stones, and the soil is a stiff, clay loam, and when properly cultivated, is exceedingly productive. Approaching the Gulf of the St. Lawrence, Lower Canada is intersected by ridges of mountains, which generally extend from the coast into the interior, with intervening valleys of a fertile and pleasant appearance. The productions are grass, wheat, peas, oats, rye, barley, &c.

The soil of *Upper Canada* consists, generally, of a fine, dark loam, mixed with a rich vegetable mould, and its productions are much the same as those of Lower Canada. It contains nearly *ten million* acres of land. The inhabitants are mainly of English descent, and speak the English language, while in Lower Canada, the French population prevails, that language is preferred, and they are generally Catholics.

The country on the banks of the St. Lawrence, in Lower Canada, is flat, and extends far interior, almost at a dead level, and resembles in fertility the rich banks of the Mohawk or Connecticut rivers. These tracts are well timbered, and the clearings are dotted with fine elms, oaks, and other trees, giving them the appearance of beautiful parks, or widely-extended pleasure-grounds. Some of the farms contain several thousand acres each. That of Mr. JAMES LOGAN, upon which we passed a portion of two days, was highly-cultivated and productive. He had a herd of very fine Ayrshire cows, and had just imported three Clydesdale horses, two mares, weighing 1,500 pounds each, and a four-year-old stallion weighing about 1,700 lbs. These horses are just what are wanted for draught in cities, for railroad purposes, and all other places where power is required rather than quick motion. There can be no doubt but that a demand would be found for every horse of this description at very high prices. This matter is worthy the attention of those engaged in rearing horses for the market.

After three or four days of hard labor in the broiling sun in attending upon the trial of machines, in company with Mr. NOURSE, one of the Proprietors of the *Farmer*, we halted on our way for a day or two at the White Mountains. The weather was clear, hot, and favorable for observation. A hundred horses had preceded us, the day we went upon the mountain, and not a hoof could be procured, so we commenced our march at the Glen House, on the easterly side of the mountain, at 3, P. M., on foot, and stood upon the roof of the Tip Top House, on the summit of Mount Washington, in season to see the sun sink into the Western horizon. A good night's sleep prepared us to be up and witness the sun's rising the next morning. After breakfast, the entire company present listened to the reading of that most sublime of all language the 104th Psalm, and then we took our way down the mountain, through *Tuckerman's Ravine.* This is an amphitheatre whose walls are a thousand feet high, and from whose sides issue hundreds of springs, forming cascades of singular beauty as they fall from point to point. In the bottom of this ravine we found snow fifteen feet deep, and the cascades and the melting snows are the sources of the Peabody River.

Great numbers of people have visited the mountains this season, and that number, we have no doubt, will be much increased hereafter, as they present one of the most sublime features of the works of an Almighty hand. There should be a carriage-road constructed to the top of Mt. Washington, or, at least, a good bridle path, so that aged or feeble persons may go to the summit. The cost would soon be repaid by a toll. We saw and heard many things which it would be pleasant for us to relate, and which might be pleasant and profitable to read, but want of space will exclude any further account of them.

MANURE.

We know a farmer who has used several cart-loads of horn-piths the past two seasons for manuring his potatoes in the hill—a pith to each hill at the time of planting, more than doubles the crop over rows having no manure. As the potatoes are dug, the piths are thrown into heaps, and afterwards carted off and deposited in a safe place for next year's use. They will last for this purpose many years. The farmer pays about $1,50 a cart-load. He also, occasionally, obtains from the same yard the lime, after having been used for starting the hair and skins, as well as some of the fleshings and poor quality of hair. These are made into compost by mixing with loam or muck, and make a good and lasting manure, and at a cheaper rate than he could procure stable manure.

The waste wool from woolen factories and carding machines can sometimes be had at a trifling expense. Wool and cotton rags contain a large per cent. of nitrogen, and above five per cent. of sulphur. One hundred pounds of wool contains about seventeen pounds of nitrogen—as much as there is in the very best guano, and

more than there is in three thousand pounds of fresh cow dung. Wool and woolen rags decompose very slowly in wet, stiff soils; therefore, if used in their natural state, they should be spread upon sandy, or light, warm, loamy land, and plowed in. On such land they are lasting and valuable manures. Great quantities of waste wool and woolen rags are used to manure the hop grounds in England, and the hop-growers there readily pay $25 to $50 per ton for them as a manure for their grounds. From the slow decay of wool and rags, they probably can here be most economically employed when previously rotted by being made into a compost, and then applied to the wheat crop.—*Dansville Herald.*

For the New England Farmer.

FRUIT VERSUS ROBINS.

The robin question is becoming one of serious moment, or, certainly, of more importance than those not directly concerned seem to be aware. The Bird Law, sent through the Commonwealth on hand-bills last spring, was received, in this neighborhood at least, as a very pretty specimen of Imperial Legislation. Most people here think that a man should have an undisputed right to his own fruit. They fully believe that a free citizen, of a moderately free country, should be allowed to protect his own fruit *in his own garden*, against the depredations of any wild beast, or bird, that runs or flies. But, although they claim the right, they do not unduly exercise it. Farmers are not devoid of all humanities.

The cultivators of the soil are the tried and special friends of birds, and only when necessity compels, do the farmers of this State destroy or disturb them. They are not the class of men who kill robins for the paltry purpose of making *a meal of them.* They are no enemies to a law against *wanton* destruction, but the fault of that law is, that it ignores all cases of necessity. It punishes us for destroying certain birds in places where they have already become a positive evil; and yet provides no other remedy.

Giving robins the absolute freedom of the fruit garden, not only insures a waste of fruit, but deprives us of the services they would otherwise render. If kept away from our fruit, they must seek their food in field, pasture, apple-orchard, and cultivated portions of the farm. But, if left undisturbed, wherever fruit is grown they will congregate. They will build their nests in the immediate neighborhood, rear their young, and all feed and fatten on fruit that human beings ought to have. With undisturbed possession, each brood will waste enough to supply a family of six persons with all the fresh fruits they need.

But some say that they pay for the mischief they do by protecting fruit from insects, &c. From what do they protect it? In this neighborhood it is from *angle-worms!* Yes, angle-worms, and nothing else, save from the rightful owner.

"Save from the curculio." Indeed! Under the very beaks of a hundred robins I cannot get one plum per tree. "Protect from canker-worms." They don't even keep the leaves that cover their nests from being covered by canker-worms. As to their making such havoc among canker-worm grubs in spring, allow me to say that I never have yet seen a fruit-grower who places any reliance upon such protection. Very few grubs, beetles, bugs or insects, need other life-insurance than plenty of fruit and fish-worms within fifty rods.

Being omnivorous, robins *can* feed upon almost any thing, but where their choice is to be had, fruit is chosen. They feed their young for a few days with worms, or grubs and insects, if more readily obtained. But soon as the first strawberries ripen, they begin to feed upon fruit so costly that few human beings can afford to eat it. From this time, through the entire season, they are, in many gardens, an unmitigated nuisance. They also do much harm by keeping away more useful, and really insect-eating birds. Very few of these will stay where the noisy and quarrelsome robins are very numerous. A shepherd who sets a sheep-stealing cur to guard his flock, might consistently advise fruit-growers to keep robins to protect fruit. But I insist that not he or any Legislature has the right to compel a man to accept such advice. If any owner of a flock should be compelled by law to keep such dogs as devoured a sheep or lamb every day, instead of better dogs, or, none at all, he might readily understand the workings of the Robin Law.

The physicians tell us to eat more fruit. "Give us more fruit," say old men and young, women and children, rich and poor,—all the denizens of our cities. "Cultivate more fruit, farmers," say Editors, Gentlemen and Lawyers, and then straightway combine to make a law forbidding them the privilege of protecting the fruits they have already taken unwearied pains to grow. A happy measure of encouragement, truly! A murmur of dissent among farmers is heard, and then comes the cry, "Cultivate fruit enough to feed birds and all." That reads finely in the play, but the acting it gives another and very different view.

I have tried that theory a few years, not in a gentleman's parlor, not in a lawyer's office, not in horticultural rooms, nor yet in the Legislative Hall, but in a place most suitable to test its merits thoroughly. Ten years ago I set a few strawberry vines on a farm where many kinds of birds were plenty, but no species exceedingly so. Robins were plenty enough to prevent my setting cherry trees, for those who had full-grown ones, could get little save half-ripened, unwholesome fruit. Two seasons the robins ate some strawberries, but not many. I set more vines, and more birds found them.

I set currants, gooseberries, raspberries and grapes, which lengthened the fruit season, and the robins began to leave the surrounding farms, and come and board with me. They became very destructive.

I would not kill, but tried to frighten them. Young robins don't fear any thing much. The old ones would frighten, and fly, and return and feed alternately, from daylight till dark, if I could spend time to do the frightening. The result was, they wasted so much, that from two bushels of green gooseberries I could not obtain four quarts of ripe ones. I could leave no currants on the bushes for home use—could sell

five bushels green, but could get none fully ripe. Of raspberries, from eight to twenty boxes per day, they would take one-half. These protecting robins would leave the farms, grubs, caterpillars, and all, to eat whatever berries chanced to be ripening. No argument could compel them to leave my garden, no persuasion induce them to stay on farms where they were wanted, no insectiverous theory was theirs, and no Horticultural Committee confined them to *three berries per day*. I can say from experience that there is no profit in this mode of fattening robins. I remember that the "Star" correspondent of the *Farmer* gives no heed to profit or loss, but with admirable coolness, and an easy flourish of his pen, devotes a "large part of our currants, strawberries and cherries" to the robins. Well, that is only a *large part of my means of living*—one little item of his—strawberries. Probably his fruits are not much exposed to their depredations. He admires to see the robin "hopping and chirping about." But, permit me to ask, "Who pays the piper?" If friend "Star" should be compelled to pay, as I do, *three dollars per day* for the "chirping," we should see a "hopping about" infinitely more entertaining than a robin dance.

My communication is already too long, but I beg leave to acknowledge one good feature of the robin law—its philanthropy. It permits whole colonies of robins to rear up large and interesting families in each man's garden, to feed all summer on his finest fruits, and then go forth in autumn all ready fattened for the southern market. Give us thanks—'tis all we get—O, epicures of New York, Philadelphia and Baltimore, for the million birds we send you. It is cheaper to fatten turkeys, but it were a miserly thing to present you with any thing fattened on vulgar Indian corn. The robins are ready. O, what infinite pleasure to southern sportsmen! what ready profit to southern dealers! what exquisite relish to southern palates, what unbounded delight to southern cooks and connoisseurs! Worthy old Bay State! Philanthropic old Bay State! Mother of New York, New Jersey, Maryland, Virginia, Pennsylvania and the Carolinas—step-mother to the citizens of Massachusetts! Complacently folding her hands in the fullness of joy, in view of her great disinterestedness, she sits, like another Mrs. Partington, *in the very shadow of her own benevolence.*

N. Page, Jr.

Danversport, August 9, 1859.

Remarks.—We do not wonder at the sensitiveness manifested by fruit-raisers with regard to the "bird-law." The question comes home to them now, whether they shall abandon the cultivation of the small fruits, and thus cut off their source of obtaining a livelihood, or whether they shall have the liberty of protecting themselves against birds, as they do against other creatures that commit depredations upon their property. Mr. Page has very nearly described our own experience in the matter. We have four distinct patches of land planted with the strawberry, and had cultivated them with care, hoping for a fair share of them as a reward. From three of them we scarcely obtained a pint of ripe fruit, and seeing the destruction which awaited the fourth patch, we covered it with large pieces of gauze cloth,—upon which the robins were so indignant as to scold vociferously, raising every feather upon their backs, like "a hog's bristles in a hurricane." From some twenty cherry trees we did not get a quart of fruit, and so of the raspberries and other fruits. And this was not all, for the green peas, even, were not proof against their rapacity. We like the birds, and encourage their residing near our buildings; but unless the cherry-birds, robins and orioles mind their manners, we shall—not listen to their music with as much pleasure as we have heretofore. Mr. Page is pretty severe, and has cause to be so.

FAREWELL TO THE SWALLOWS.

Swallows, sitting on the eaves,
See ye not the falling leaves?
See ye not the gathered sheaves?
Farewell!
Is it not time to go
To that fair land ye know?
The breezes, as they swell,
Of the coming winter tell,
And from the trees shake down
The brown
And withered leaves, Farewell!

Swallows, it is time to fly;
See ye not the altered sky?
Know ye not that winter's nigh
Farewell!
Go, fly in noisy bands,
To those far distant lands
Of gold, and pearl, and shell,
And gem, (of which they tell
In books of travel strange,)
And range
In happiness. Farewell!

Swallows, on your pinions glide
O'er the restless, rolling tide
Of the ocean deep and wide,
Farewell!
In groves, far, far away,
In summer's sunny ray,
In warmer regions dwell;
And then return to tell
Strange tales of foreign lands,
In bands,
Pearched on the eaves. Farewell!

Swallows, I could almost pray
That I, like you, might fly away:
And to each coming evil say
Farewell!
Yet, 'tis my fate to live
Here, and with troubles strive,
And I some day may tell
How they before me fell,
Conquered; then calmly die,
And cry—
"Trials and toils, farewell!"—*Hood.*

Experiments on Curing the Bite of the Rattlesnake.—The snakes brought by Prof. Christy from the South, says the Cincinnati *Ga-*

zette, have been used at the Ohio Medical College, in a series of experiments to ascertain an antidote for the poison.

A few days since a dog was introduced to the snake's cage, and was immediately bitten. Prof. Foote administered to him brandy containing five drachms bromine, four grains of iodide of potassium, and two grains of corrosive sublimate. He recovered in a short time. To test the question whether his recovery was due to the brandy or to the ingredients it contained in solution, another dog was suffered to be bitten on the 8th ult., and the bromine, iodide of potassium and corrosive sublimate administered alone. An hour after he seemed to be recovering slowly. The next experiment will be to administer the brandy alone, which is claimed to be an effectual remedy.

For the New England Farmer.

TO MAKE GOOD PICKLES.

Mr. Editor:—The following recipe, if carefully followed, judging from our experience, will furnish "a lover of good pickles" with an article every way desired. Made thus, we have had them when kept two years, still perfectly hard and brittle.

Take the cucumbers carefully from the vines, leaving the stems on, (a very important part, by the way, as so much depends thereupon that none that are bruised in picking or otherwise should be used,) wash them carefully in pure cold water, rubbing them, to remove the prickles from the stem, as well as the cucumber; then sprinkle a layer of fine salt in the bottom of the jar to be used, add a layer of cucumbers, again a layer of salt, then cucumbers, repeating the process until the jar be full; letting the last layer be of salt.

Then pour upon them a sufficient quantity of boiling water to cover the whole, after which let them stand twenty-four hours, when they should be taken from the brine, wiped dry, and placed in the jar or tub in which they are to remain.

Next scald the vinegar, seasoning thoroughly with salt and as much cayenne pepper as is admissible to the taste. After cooling, pour upon the pickles; stir every day to break the scum, should any rise. If at any time the vinegar should become dead, either add new, prepared in the same way, or if there be sufficient life to keep them bright, scald the old.

A fair trial of this, and it is my belief that "salting down" will be dispensed with.

Annie, of the Berkshire Hills.

August 12, 1859.

Remarks.—"Farmer," of Meredith Village, N. H., says, "to one part 'good new wine,' add three parts water; rub the cucumbers dry with a clean cloth, and cover them with this liquid, adding green peppers and tomatoes; set in a cool, dry place, and stir them carefully once a week for five or six weeks. Put a linen cloth between the pickle and cover."

We have received several other recipes for making pickles, but they so much resemble those already given that it is unnecessary to publish them.

EXTRACTS AND REPLIES.

THE CURCULIO.

Is there any way that I can prevent the mischief of the curculio, either by picking up the fallen fruit, or by pasturing my orchard with cattle or hogs?

Does the insect fly off from neighborhood to neighborhood, so that if I should prevent their multiplying upon my own farm, I should still have a supply from my neighbors? Has the insect any means of propagation except by depositing its egg in the fruit?

By answering the above inquiries you will confer a great favor upon many of your readers in this section of New Hampshire. C. A. W.

Hancock, N. H., Aug., 1859.

Remarks.—The curculio may be kept from destroying fruit in a few favorite trees, by sprinkling the young fruit three or four times a week when it is wet, with slaked lime or dry ashes, or by jarring the insects down upon a sheet. They fly from place to place. We have never learned that they propagate any other way than by depositing their eggs in young fruit.

CROPS IN VERMONT.

The farmers in this section are looking rather blue. Perhaps you are not aware that we are having the most severe drought that has been experienced here for nine years at least. Early sowed English grain is good; hay about two-thirds of an average crop; corn and potatoes minus, unless we have copious rains soon. In a communication from Hon. Simon Brown, dated Montreal, Aug. 16th, he says "the hay crop is abundant." I think in passing through our place at least, he must have been looking at those "laughter-loving girls," instead of looking out of car windows—or he would have seen that our pastures and meadows are actually dried up. Most of our cattle are nearly in a starving condition, and some farmers say they shall be obliged to sell their cattle, or drive them to the mountains to browse. Grasshoppers too numerous to mention. E. Murphy.

Middlebury, Vt., Aug., 1859.

Remarks.—If friend Murphy had been in the cars with us, we will venture to say that the "meadows would not have appeared dry" nor the "cattle starving." But as it was *our duty* to observe, we *did* observe, not only the girls, but the grasses, grains, gardens and fields. We saw that Northern Vermont was suffering somewhat for rain, more so than any other place we visited, and yet some of the best farmers in that State assured us that the hay crop had been good. We were careful to say of Vermont, however, as follows: "The recent refreshing rains of your State [Mass.] did not extend to Vermont, and the way was consequently dusty. Pastures, grass lands and corn are suffering considerably," &c. Take courage, friend M., we hope you have had copious rains before this time, and that your cattle will "be up to their eyes in clover," before

frost comes. But we sympathize with you, nevertheless, in the parching drought ye have experienced.

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SWARMS OF BUGS.

I send you a sample of bug which I have recently discovered in large swarms passing up and down my apple trees, and wish you would tell me their name, and the most effectual method of destroying them. I have never seen the insect till last summer I found them in a small fir tree near my house, and thought I killed them all by flashing a small quantity of gunpowder underneath the tree; but now my apple trees are swarming with them, notwithstanding that I had my trees thoroughly scraped and washed with soap-suds in the spring, and have quite recently repeated the washing. By replying to this you will much oblige O. S.

N. B. I notice a few amongst them that have wings which they seem to have just come in possession of. O. S.

Brookfield, Mass., Aug., 1859.

Remarks.—The *bugs* you sent were *squash* when they reached us. Examine them carefully, and then refer to "Harris on Insects," and see if you cannot get their name.

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CURE FOR A RUPTURED COLT.

In answer to the inquiry of "W. C. B.," I will give him my experience. One year ago I had a colt about the age of yours, which had a breach similar to that on your colt. As soon as I discovered it, I took a piece of sheet lead five or six inches square, rounded the corners, so as not to chafe him, sewed it to a cloth bandage, and bound it up tightly; I fastened it from working back by attaching a strap to it, passing it around his breast. I let it remain a week, and then took it off to examine it, when it appeared to be well; but to make it sure, I put it on again, and let it remain another week, which effected a perfect cure. A. Daggett.

Farmington, Me., Aug., 1859.

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WEATHER AND CROPS IN HILLSBOROUGH COUNTY.

We are now in the midst of a pinching drouth. Corn and potatoes are suffering upon light plain land, especially if choked with weeds, as they abstract largely from the nourishment and moisture now doubly needed by the plants as they are approaching maturity. Hay and grain are remarkably good, and are mostly secured. Apples are very scarce. C. A. Whitaker.

Hancock, N. H., Aug., 1859.

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ORANGE QUINCE.

In the cultivation of these trees, many think that they require a damp and shady position, and that they do not want manuring; I apprehend this to be a delusion; they require to be planted in good loam, and the earth to be loosened deeply by the subsoil plow, or trenched by double spading, and well manured with a good compost in the drills; shorten in the branches one-half of last year's growth, give the roots a good drenching with water in setting; leave the soil around the stem concave; place them ten feet apart, and the rows twelve feet, prune just after the fall of the leaf, late in the fall, or early in March. Fork in, late in the autumn, three or four shovelfuls of fresh manure. After digging around the trees in spring give the whole a broadcast of salt.

Salem, Mass., 1859. J. M. I.

—

TO CURE DYSPEPSIA.

Make a tea of the herb called Bay or Meadow Fern, and drink freely after eating. This herb is common in this vicinity; it grows in meadow lands, and in low, swampy localities; it resembles the whortleberry bush, and is covered with small aromatic burrs.

Concord, Mass., Aug., 1859. J.

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GOOD BUTTER.

"D." is informed that the facts communicated to him by an "old lady," about butter-making, we have already given in former articles.

For the New England Farmer.

LABOR-SAVING MACHINES.

Mr. Brown:—Some weeks since I noticed a paragraph in your paper recommending all persons to purchase labor-saving machines. We poor farmers in this part of the world, having to practice economy, must in the first place know which the labor-saving machines are. Some persons say that the way to find this out is by experience. Now must we buy machines which we know nothing about, except by persons who crack them up a great deal on purpose to sell them, and if we find them of no value, throw them aside and lose our money? Of course not, we must learn from those who have tried them, and if they can make them profitable, we can. One of my neighbors was mowing with a machine last week, and he asked me what I thought of it. I told him that I thought it would do very well for a rich man, but for me it would not do. It took one man to mow round the edge of the field, one to manage the mower, and the horses were equal to two men, which would make four; and four men would have mowed it quicker, cheaper and better than the mower did it. Ketchum's one-horse mower is the best one that I have seen. It works well on most of our land. Our land is high and the crops generally suffer more from dry weather than from early frosts.

Westboro', Aug., 1859. Inquirer.

Remarks.—"Inquirer" asks us if he must buy machines that he knows nothing about? Certainly not. Exercise the same sound judgment and discretion that you do in purchasing a horse, a farm, or a plow or cart. Go and see those in your neighborhood or town, and criticise them closely, but fairly.

There is another view to be taken of the value of a mowing machine, beside the one in which you describe it. Suppose you keep a pair of

horses usually on the farm, would they not be quite likely to be idle if they were not in the machine? Suppose, also, that you or your father, are in feeble health, or have seen too many haying seasons to swing the scythe with two or three rugged men—perhaps Irishmen—could you not guide these horses, hitched to the machine, and cut five or six acres a day, when you and the horses would not otherwise have cut a single swath? And pursuing this course, would you not have done more towards securing your hay harvest than any three men could have done? There is no doubt of it. There are several other reasons just as applicable as this, why we should use a mowing machine, and other labor-saving machines and implements; but we must exercise the same good judgment in their selection and use that guides us in other important matters.

For the New England Farmer.

HOW SHALL WE BUILD OUR BARNS?

To answer this important question, we must first consider the objects to be had in view, in building a barn at all. The most important one certainly is stowage; the next is a convenient stable for domestic animals; and lastly, a manufactory of manure. A building that provides for all of these in the best and most convenient manner, and to the greatest extent for the original cost, and at the least outlay for future repairs, will be the best barn, and a great desideratum to the agricultural community.

The form most commonly used with us, is a building from forty to fifty feet in width, with a barn floor or drive-way running length-wise through the centre, and having stalls or cattle-house on one side, with mows for hay, &c., on the other. This makes a convenient stable, but sacrifices to this convenience both the other requisites of a good barn. The floor or drive way, is very expensive to build and occupies the centre of the building, where is the largest and best place for stowage, and gives a cold and unnecessary space, which can only be partially used at any time. The very small amount of convenient room for keeping hay, grain, roots, straw, cornstalks, and refuse for bedding animals and composting with manure in proportion to the space enclosed and roofed over, is the great objection to this form of barn, and unless the ground on which it stands enables one to put a cellar under it, there is no possible opportunity to manufacture manure. It must be, and always is, thrown out through windows to waste its strength, and become a nuisance in a muddy yard. The liquid portions are also lost entirely, unless expensive and troublesome means are provided to save them. A cellar will remedy these defects, where it can be had; but it is at best an ugly, inconvenient, costly and dangerous affair; and should never be used on a farm.

The digging and stoning a cellar, and building a floor over it, sufficiently strong to be safe, will cost as much as a good barn ought to cost, with ten times the convenience for making and saving manure. We say, then, that the most approved form of barn in common use in New England is sadly defective in at least two of the essential requisites of a good barn; and that the expensive addition of a cellar is not the improvement wanted to get a good barn.

Again, our common barn is generally built about fifteen feet high from the floor to the eaves, with a roof rising at an angle of forty-five degrees. This is, perhaps, as high as hay can be pitched by hand; but just look at the enormous roof required in this style of building! The roof, too, costing the most of any part of the barn originally, and requiring expensive removal every twenty or thirty years!

In the first place, it is one-third larger than would be necessary to cover the building; the most of its enclosed space is entirely lost for all purposes of stowage, being directly over the floor or drive-way; and the walls are so low that but little of the bulky products of a form can find room for themselves, without extending the building to the dimensions of a whole block of city warehouses.

Some few barns are built narrower, and have a lintel or lean to, for the cattle. But this requires an additional roof, with no room for stowage under it whatever. In our cold climate, and with the costly and perishable materials used in building, we must inclose no waste spaces; and should expose the smallest possible surface of roof. This may be accomplished as it is done in warehouses in the cities; by flat roofs and high walls, and now that we have the horse pitchfork, the objection to high mows is entirely done away with. The hay can be thrown up thirty feet, as easily as it can be carried up ten; and its exposure to dust and offensive effluvia much reduced, by its compactness and small external surface.

There is a plan of a huge barn given by L. F. Allen, which has been widely recommended in our agricultural books and papers; and in my judgment embraces all the faults of our common New England barn, with several additional errors, strangely palpable. In the first place, he has 12,512 square feet of roof surface, on a barn 100 by 50, with a sixteen feet lean-to on three sides—more than enough to cover a building 110 feet square! and he gets only stowage room enough for about 170 tons of hay under this immense roof. In fact, he says that he has put into the barn 150 tons at a time, "and that it will hold even more, if thoroughly packed." But put the same roof over a barn 110 feet square, with walls thirty feet high, and you will have ample room for 500 tons, besides the requisite space for the cattle, and for the machinery to be used in preparing their food, and for manufacturing any desirable amount of manure.

But he raises the whole of his barn, except the lintels, four feet from the ground! For what possible reason? Every thing has to be hauled up that distance, over inconvenient inclined planes, and the whole space, sufficient to store 50 tons of hay, after being roofed over, is thrown away by building costly floors, for no possible purpose whatever!

And this is another error uniformly adopted in our barns. Why should we have floors in our barns, kept up a few feet from the ground, by heavy timbers, that are continually rotting away,

and occupying the most convenient part of the space covered by the roof? It forms a retreat for vermin, catches and holds the most valuable part of the barn manure, and next to the roof, is the most expensive, and rapidly decaying portion of the barn; subjects us to many accidents and heavy losses, and really does no good whatever, but is in the way, cold, costly and troublesome.

I am in urgent need of a huge barn, and when I build, I want to get a good one, and to get it cheap. How is this to be done? I have already hinted at some of the ideas I have about it. It shall have no floor, and consequently no floor timbers; this will reduce the cost materially, and will be in imitation of the barns in the old countries, which are all built with no other floor than the bare ground, except in some parts a stone or brick pavement.

Prince Albert has recently put up a set of farm buildings at Osborne, without regard to expense, and is said to have a model steading; but in none of the barns, stables or sheds, is there any floor; though the ground is paved with small, round stones in some parts, both outside and inside of the buildings. And what could be better or more durable? The best threshing floors are made of clay and sand and gravel; our open sheds always have a hard, smooth surface of loam for a floor, which is the best floor possible, either to work on, or for storage. Of course, the walls must be so constructed as to exclude the water and the frost.

This all will admit, I think, will answer every purpose, except perhaps for cattle and horse stalls. But here it will be far better than anywhere else. The real farmer wants a manufactory of manure. He does not simply desire a handy chance to get rid of the excrements of his animals; and he finds a barn cellar a poor place to mix and compost the materials required to make manure. But having provided the requisite articles, he can place and mix them as he likes on the ground under his animals, and conserve their health and comfort at the same time that the manufacturing process is going on; and this being attended to daily, a great deal of work is accomplished, in the best manner, and with greater economy, than if left for long intervals and heavy jobs.

We will, therefore, have only a floor of hardpan in our new barn, composed of clay, sand and gravel, well mixed and rolled down all over the bottom, smooth and level, and just even with the ground outside the building. No platforms or steps required to haul up or climb up into it, and no waste room, under the floors, to fill up with hay seed, urine, skunks, weasels, rats and stray hens' nests.

The roof, as already intimated, shall be flat; thus saving one-third in extent; and covered with composition roofing, instead of shingles, which will save another third in cost of materials and repairs. The objection to this, is its liability to become heavily loaded with snow; but this is only a small matter. It does not snow so as to load the building, oftener than it blocks up the roads; yet no one proposes to abandon the roads because they are sometimes impassable by reason of heavy snows. The roofs and the roads can both be freed from this encumbrance by the same means, and the interest of the money required to build a steep roof will more than do it.

Now come the walls; and these are to be set in the ground below the reach of frost, on a firm stone wall, and made of stones chiefly, but in good part of lime, sand and gravel, (unless clay may be used instead of lime, the walls being plastered on the outside.) We will carry them up thirty or thirty-five feet, in order to secure abundant storage room, and protect them by wide projecting eaves.

The barn shall be 80 or 100 feet square, with doors and windows on all sides; and nothing inside the walls, but the posts or pillars to support the roof, except where scaffolds are thrown over the stalls for cattle and horses, and over rooms for manure, muck, machinery, &c.

I can now drive into my barn at any convenient door, with a loaded team, and instead of being confined to a narrow drive-way, and compelled to pitch the hay over and over, across wide mows, I can drive all over the barn, into any corner, and with a horse pitch-fork unload just where I wish to, and can drive in a dozen loads at the same time.

In this large, cheap barn, I can store and keep all my spare hay, and not be compelled to sell it at a ruinously low price, to make room for the next crop; but can hold on to it till the price is remunerating. I can extend the accommodation for cattle and all kinds of farm stock at pleasure, by clapping up stalls anywhere as required; and can always regain the space for storage, without expense, when that is desirable. All the work is now to be done on the same floor. With a wheelbarrow I can carry the hay or straw to the cutter, and when it is cut and mixed, I can feed the animals conveniently in the proper boxes for them to eat from. I can take the dry muck or refuse from its room, and mix it under the cattle in small quantities, till it is properly moistened with urine and compounded with dung, and then wheel it to its convenient place, to be preserved in its strength, unfermented and inoffensive, till it is wanted upon the land.

The barn will be dry and warm, yet well ventilated; a store-house, a stable, a manufactory; convenient, large, durable and cheap.

J. W. K.

Strawberry Bank, Durham, N. H., Aug. 25, 1859.

Black-Faced Mountain Sheep. — We recently saw eight sheep of this breed, selected in Scotland by Sanford Howard, Esq., and sent in the ship Old England, which arrived at Portland a few days since, and from whence the sheep were sent to this city. There are two bucks and six ewes. They all have horns—those of the bucks are large and graceful. Their faces are black, and the legs are spotted with black. Wool, coarse and long. They are long and deep in body, with a good proportionate width. Mr. Isaac Stickney, of Boston, a gentleman who has long taken much interest in introducing new and good stock into the country, has imported them with a view of getting a breed of the best mutton sheep.

For the New England Farmer.

DRAINAGE.

MY DEAR BROWN:—In the publication of my book on *Farm Drainage*, the chapter which I send you was omitted, to make room for matters which were deemed essential. Still, I think it will interest our readers, and have some tendency to direct attention to the all-important subject of Health, which, says Isaac Walton, is the blessing next in value to a quiet conscience.

HENRY F. FRENCH.

INFLUENCE OF DRAINAGE ON HEALTH.

Swampy Districts unhealthful—Sixty millions of Acres of Swamp given away by the United States Government—Clearing Land of Timber makes it dryer—Fevers and Agues leave where Land is Drained—Mr. Colman's Opinion—Facts—Birkenhead Park—Opinions of Distinguished Men—Health of Stock improved by Drainage.

Although the general proposition that drainage promotes the healthfulness of a country or district will be readily admitted, yet it is believed that this idea does not, by any means, make its due impression upon the community. It is proposed, therefore, briefly to consider the subject in its relations to the health both of man and of the domestic animals, and to cite such authorities that a way-faring man, though not quite wise or learned, shall not, if he reads the chapter, fail to see something of its force and importance.

It can hardly be expected that private individuals, owners of small tracts of land, will embark in schemes of drainage for the improvement of the climate merely, or that the limited operations of individuals on their own land can be pointed to as evidence that drainage promotes healthfulness.

There are, however, certain propositions generally received as truth. Wet, swampy districts of country are usually afflicted with agues and fevers, and other forms of disease, from which dry regions are exempt.

In accordance with this idea, and with a view to promote the healthfulness of the country, the United States government, by Acts of 1849 and Sept., 1856, granted the swamp and overflowed lands of the government, as a gift to the States in which they lie, and it is officially estimated that when these grants shall be entirely adjusted, they will amount to *sixty millions* of acres.

Lands covered with timber are far more damp than cleared lands.

It is a well established fact that mill streams and rivers have grown perceptibly less throughout New England, since the wood has been cut away. Streams, which formerly were sufficient to drive certain mills, have failed, probably through the increased evaporation, so as to have become entirely inadequate to the purpose.

Fevers and agues seem to leave an old State, and to pursue the pioneers into new settlements. Indeed, it is not, perhaps, assuming too much to say, that generally in proportion as, by the cutting away of timber, or by other changes, such as the clearing up of swamps, the climate of a country or district is rendered more free of *dampness by evaporation*, in the same proportion its healthfulness is increased.

Mr. Colman, of Massachusetts, a careful observer, both at home and abroad, of the effects of drainage, says,

"There are considerations connected with the subject, which are not to be measured by a pecuniary standard, but whose importance cannot be over-estimated. I mean, for example, such as refer to the health of the country. The fogs and dampness arising from wet and undrained lands, are a prolific source of ill health and sickness.

"Tracts of land which are liable to fevers and agues and consumptions, by a complete drainage have become salubrious, and are now upon an average standard of longevity with other parts of the country."

An English Board of Sanitary Commissioners states the matter as follows:

"1. Excess of moisture, even on lands not evidently wet, is a cause of fogs and damps.

"2. Dampness serves as the medium of conveyance for any decomposing matter that may be evolved, and adds to the injurious effects of such matter in the air;—in other words, the excess of moisture may be said to increase or aggravate atmospheric impurity.

"The evaporation of the surplus moisture lowers temperature, produces chills, and creates or aggravates the sudden and injurious changes or fluctuations of temperature, by which health is injured."

"Where there is a large accumulation of surplus moisture, having animal or vegetable matter in suspension or solution, the injury to the public health is so direct and considerable as to amount to a nuisance requiring authoritative intervention. The evils thus arising, which are found in the greatest intensity in low-lying town districts, in valleys near rivers, or on sites below high water mark, have been exemplified in the General Sanitary Report, and also in the Second Report of the Metropolitan Sanitary Commissioners. The inhabitants of drier districts are often afflicted with marsh diseases from the ill-drained lowlands; thus, after the prevalence of easterly winds over the Essex and Kent marshes, cases of marsh fever and ague are found scattered throughout the whole extent of the metropolis."

In the same report, under the head of "The Drainage of Parks and Suburban Lands," we find a notice of the drainage of the park near Liverpool, which, in 1857, when seen by the writer, presented the appearance of dry and healthful pleasure-grounds. This account should instruct Americans, because the Park at Birkenhead is one of the first beautiful landscapes that meets

his gaze after his weary wanderings over the dreary waste of waters.

The space of ground near Birkenhead, now called the park, was, a short time ago, like much suburban land near the metropolis, a mere marsh, over which thick mists hung at nightfall. It was thoroughly drained by Sir Joseph Paxton, with drains varying in depth from seven feet to close surface drains. The mists and fogs created on this tract have, since the drains came into operation, disappeared. The expense of that work was £20 per acre; and the land, which before the drainage was worth only £1 per per acre, is now worth, at the least, £4 per acre for pasturage; so that the work pays 15 per cent. direct profit, besides effecting its main object,—the improvement of the neighborhood in comfort and salubrity."

Upon this point, as upon so many others, we are obliged to refer to English authority, because so little drainage has yet been effected in our own country, and because our government has as yet collected no statistics touching the matter.

There is no reason apparent, however, why the testimony of eminent agriculturists abroad should not be deemed as reliable as that of our own countrymen.

In 1848, "queries" were issued by the "Metropolitan Sanitary Commissioners" regarding the Drainage of Land, and the following extracts from the answers of gentlemen of the highest character, as published by order of the British Government, will be found pertinent and satisfactory as to the beneficial effect of drainage upon the health of domestic animals and of the population.

Mr. Smith.—In the alluvial clay districts of Stirlingshire, and west of Perthshire, where the drainage was formerly effected by large open ditches, in the Dutch fashion, ague was periodically prevalent, and rheumatism, fevers and scrofulous affections were much promoted, until the introduction of thorough-drainage, forty years ago; after which period those diseases began to disappear, or to be mitigated in severity. Few cases of ague now appear. Fevers are seldom known, except in the usual course of fevers which prevail epidemically over the whole country; and it is generally observed by the inhabitants that their cattle or stock are now less subject to diseases. In the undrained condition of these districts they were subject to dense fogs, especially in the autumnal months when much rain had fallen, communicating a chilly feeling to the inhabitants; but since the general introduction of thorough-draining those fogs seldom prevail, unless in a general foggy tendency of the atmosphere of the country.

Mr. Parkes.—The complete drainage of town and rural districts is universally admitted to be conducive to the health of both man and animals. The medical profession are, however, best qualified to give testimony to the one, and veterinary surgeons to the other.

The disease of foothalt in sheep and deer has been perfectly removed in many gentlemen's parks, and in extensive pasturage grounds, by deep under drainage. The earlier seasonable maturity of venison, and a greatly improved flavor, are also the acknowledged results of complete drainage. Foothalt, however, is known to occur where sheep are turned on very luxuriant herbage, kept continually moist from the state of the atmosphere, though the land be not wet; so that drainage alone will not, on all soils, and at all times, exempt animals from suffering from this disease.

In respect of increased salubrity induced in towns and rural districts by drainage, I may instance the acknowledged disappearance of ague and other periodical maladies consequent on the great drainages effected in Cambridgeshire—as in the Isle of Ely, &c.—and in the Lincolnshire and other great marshes.

As an example of the good effects arising from the drainage of swamps, I may state that the Commissioners of Her Majesty's Woods and Forests, of which your lordship is the chief, have recently caused me to drain an extensive tract of country in the New Forest, called the Weare's Lawn and Bog, adjoining which is a small hamlet, whose inhabitants previously suffered much from intermittent fevers. The hamlet is now healthy; the offensive gaseous emanations from the soil have ceased; and the inhabitants are supplied with abundance of the purest spring water, discovered during the operations of drainage, and appropriated to their use.

Mr. Spooner.—Beyond the general improvement in a sanitary point of view, and the diminution of fever and ague, acknowledged to have resulted from the drainage of the fen districts of Cambridgeshire and Lincolnshire, and the marshes of Essex, I am not acquainted with cases in which improvement in the health of population can be traced to drainage as a sole cause; but in respect to stock, a striking instance can be adduced of improvement in healthiness resulting from drainage alone, attributable to no other cause. In the Highlands generally, and more particularly on the west coast, there exists a well known and fatal disease among sheep, incurable by any treatment, termed "Braxey," which on undrained lands and in wet seasons is a cause of very serious losses. This is, in a great measure, prevented by drainage, and the diminution of casualties alone is more than sufficient to cover its cost, independently of the increased quantity and better quality of the fodder produced. This system has been extensively practiced for several years, and invariably with the same beneficial results.

Mr. Macaw.—As to the health of cattle or stock, I have the strongest evidence of the beneficial effects of drainage in many instances. On the lands which I possess, and on several others in the district, a disease called red water prevailed, in some years proving very fatal; but after drainage and cultivation of the marshy parts of the pasturage the stock has been free of that disease. I may mention that the first and most severe cases of pleura pneumonia in cattle that had occurred in this and a neighboring county were on lands of a swampy, undrained character. The surface drainage of sheep walks in every district is well known to promote the

healthiness of the stock; and I believe the thorough drainage of a single swamp in any locality will be an important means of improving the health both of the population and stock connected with it.

Mr. Beattie.—It is apparent that animals have more comfort and thrive better on dry lands than on wet.

I am aware of instances where marsh lands have been dried, and all the disagreeable and injurious effects arising from the swamps removed, such as frosts, fogs and blights, &c. These lands have been again allowed to become wet, and all the evils formerly complained of have returned.

Where undrained lands produce bad herbage for the food of stock, and their influence in the neighborhood are injurious to crops that produce the food of man, they must of necessity be injurious to the health of the population and stock, independent of the injurious influence of the atmosphere, which cannot be so easily determined.

Mr. Neilson.—In the Altcar Meadows, belonging to the Earl of Sefton, a low level district about eight or ten miles north of Liverpool, a water-wheel was erected about five years ago, for the purpose of relieving the land from inundation; and though thorough-drainage has been very little adopted, the inhabitants speak of the increased salubrity of the locality, while the equally increased fertility of the land has created a marked improvement in the condition of the stock. In my own neighborhood, some low flat land of a stiff clay soil, and lying extremely wet, always had a scouring effect on the young stock turned on it in the spring; and no application of manure produced any alteration. It was drained, and, without any other change in the management, the same species of stock throve on it extremely well.

This is easily accounted for; the wet prevented the manure from fermenting, and fostering that species of herbage best calculated to promote the vigorous growth of animal substances, and the land became covered with a verdure unsuited for that purpose.

The withdrawal of the water produced fermentation; the aquatic plants were superseded by a more food-producing species, carbonic acid gas was more speedily absorbed, and, instead of the exhalations of the marsh, a purer oxygen was evolved, increasing both the salubrity of the atmosphere and the condition of the stock.

I have also had several opportunities of witnessing similar effects in the West Indies, and particularly in British Guiana, where I resided several years. The surface is almost a dead flat, lower than the sea at high water, and drained only at considerable expense by large sluice-gates for each estate, which are opened each period of low water.

When an estate is abandoned, this is neglected, and its neighborhood is invariably the first to suffer on the approach of an epidemic; and I have known instances of the course of a fever thus produced being checked, and materially altered, by the neighboring lands being drained, an alteration considerably accelerated by a small quantity of lime, in a finely powdered state, being distributed on the lands during a windy day.

For the New England Farmer.

GRAFTING NATIVE GRAPE STOCK.

DEAR FARMER:—I see by your Marblehead correspondent that he has found the same trouble with myself in raising native grape vines from seed. About ten years ago I planted some grape seed, and have been waiting to see what varieties I should get, and I found that the largest and most thrifty vines, although they blossomed full, never set a grape, and by comparing them with those that bore fruit, I found they would never bear. Last spring I got some cuttings that were three buds long, and in May, after the vines had grown leaves as large as dimes, I cut the vines off so low that two or three inches of dirt could be put on top of the stock; then I split and grafted the same as in apples; if the stock is small, a string tied round the top will help hold the scion fast till it is grown in. It is better to have a stock three-fourths or one inch in diameter, and then nothing but dirt will be needed. No wax should be used. My vines have now grown over eight feet in length, with side shoots four feet long, and still they are bound onward. I have not cultivated them this year any, except to take off the suckers, and these will need looking after every week; and yet there are leaves on them that measure 12 inches wide and 13 long, and the vines would in two years, if attended to, cover friend G.'s arbor. I would not destroy the roots till I had grafted them. I think they will soon be valuable fruit-bearing vines.

A. J. DODGE.

Francestown, N. H., Aug., 1859.

For the New England Farmer.

TOP-DRESSING.

"It is an excellent time to apply composted manure as a top-dressing immediately after the hay is carried from the field, as the young grass will grow up and cover it in a few days.

If this work is not already done, it should be, before the grass ceases to grow, so that the autumnal rains shall moisten the manure and carry its fertilizing properties among the roots."

The above, Mr. Editor, you will perceive, is copied from your editorial. Had you added,—if your land is already in a good condition, so that the grass will grow up immediately and cover it, or if you are sure it will rain immediately after spreading your manure, and for several days to come, until the fertilizing properties are all washed from it into the soil, or if your manure is composted of materials that are purely inorganic and will not evaporate, then you would have driven the nail where it is said Noah drove the first nail, (if nails he drove,) when he built the ark, and I should have been saved the mortification of sending my poor composition before the public. As it is, permit me to offer an amendment to your proposition, in which I will endeavor to give my own experience, corroborated by science, as I understand it.

I have learned, by experience, that the best time to apply manure as a top-dressing to grass lands, is late in autumn or in winter, so late that the manure, after being spread upon the surface, will remain most of the time in a congealed state

except when drenched by the thawing rains of winter.

The snows which are so liable to come upon us at that season of the year, will soon cover it, bidding defiance to the winds which are so eager to catch up its fertilizing qualities, bearing them hence to no particular spot.

The greatest benefit I ever received from top-dressing, was spread on the snow in winter, while that spread in early autumn has been almost an entire failure.

Ashes and other non-evaporating substances may be spread at any season of the year. Under the above process I have improved the condition of a farm which had been continually deteriorating under the process of plowing, so that the barns that were not more than two-thirds filled are now filled—full. This season I have been obliged to reap and cradle my grain, which heretofore has been mowed, for want of barn room, and all this has been done in the space of four years.

Now let us examine it in a scientific point of view. It has been my pleasure, as well as privilege, for the past few years, to enjoy the reading of your excellent paper, of which the editorials have not been of the least importance. You have frequently set forth in them, (and I think not without foundation,) as a principle, that the substances which combine to perfect the formation of the vegetable kingdom are classed under two heads, called *organic* and *inorganic*. That the organic substances are derived from the atmosphere, and the inorganic from the soil; that when these substances have combined and formed vegetable matter, and are permitted to decay, being exposed to the open air, will return to the source from whence they came.

Now, does it appear reasonable that our compost manure, a large share of which is organic, should be spread upon the surface, under the burning sun of July, August or September, exposed to the evaporating influences of sun and air, and that in case it should not rain for a week, would almost be relieved of its organic substances, or, at least, of those parts which are of any service, leaving only the inorganic, which alone cannot perfect vegetation? N. H. L.

Otter River, Mass., 1859.

Remarks.—When we wrote the paragraphs which "N. H. L." has quoted, we had not forgotten the objections he raises—they are valid objections. There is always more or less loss in top-dressing with organic manures. What we must do, is, to select that time which we think, upon the whole, is the least objectionable. We have asked the question of at least fifty among the best farmers in New England, "When is the best time to top-dress grass land?" and we think the reply has been, in a majority of cases,—"just as soon after you take your crop off as you can." If the manure is applied late in autumn, the sweeping winds which prevail at that season desiccate it with great rapidity, even more rapidly than July suns. Just before snows fall in autumn, or early in April, are also good times to top-dress; but the objection to the former time is, we cannot tell when the snows are coming, and do not like to risk the manure exposed to the fierce winds, and the objection to the latter time is, that the ground being so soft at that season of the year, might be injured by going over it with teams and wheels.

AUTUMN WILD FLOWERS.

BY MARY HOWITT.

The autumn sun is shining,
Gray mists are on the hill;
A russet tint is on the leaves,
But flowers are blooming still!

Still bright, in wood or meadow;
On moorlands dry and brown;
By little streams; by rivers broad;
On every breezy down—

The little flowers are smiling,
With chilly dew-drops wet,
Are saying with a sportive voice—
"We have not vanished yet!

"No, though the spring be over;
Though summer's strength be gone;
Though autumn's wealth be garnered,
And winter cometh on;

"Still we have not departed,
We linger to the last,
And even on early winter's brow
A cheerful radiance cast!"

Go forth, then, youths and maidens,
Be joyful whilst you may;
Go forth, then, child and mother,
And toiling men grown gray.

Go forth, though ye be humble,
And wan with toil and care;
There are no fields so barren
But some sweet flower is there!

Flowers spring up by the highway
Which busy feet have trod;
They rise up in the dreariest wood;
They gem the dullest sod.

They need no learned gardener
To nurture them with care;
They only need the dews of earth,
The sunshine and the air.

And for earth's lowly children;
For loving hearts and good,
They spring up all around us,
They will not be subdued.

Thank God! when forth from Eden
The weeping pair was driven,
That unto earth, though cursed with thorns,
The little flowers were given.

That Eve, when looking downward,
To face her God afraid,
Beheld the scented violet,
The primrose in the shade!

Thank God! that with the thistle
That sprang up in his toil,
The weary worker, Adam,
Saw roses gem the soil.

And still, for anxious workers—
For hearts with anguish full,
Life, even on its dreariest path,
Has flowers for them to cull.

For the New England Farmer.

BEAUTY, UTILITY AND REFINEMENT.

BY SUSIE SUMMERFIELD.

The day has arrived when it can be truthfully asserted that American agriculture has become elevated in the estimation of American people, and it is justly encouraged and promoted by scientific men, by earnest thinkers and workers who are pursuing the art. Now and then we find one of the "gentler sex" who presumes to express an interest in the occupation of farming.

It is an occupation in which a woman has a part to perform; then let her express her estimation, her interest in it, and she will help to lend an enthusiasm, a charm to agriculture, such as will interest and animate our young men; and she will prove her influence to be more potent than all the wise counsellors found among our grandfather and father farmers of old New England.

If woman but gives her hearty approval of this occupation, she will make sunshine to glow within our farm-houses, which shall vie with the glowing sunlight without, that mellows the luscious fruit, and matures the golden grain upon the productive fields. But, alas, some blush to do this, for fear of being unrefined, and I pity them in their mistaken opinion; while I take my pen to assert that a beautiful combination of beauty, utility and refinement, may and ought to have an intimate relation with the farm.

The word beauty is expressive of adornment or embellishment. Beauty is discernible in all of God's works, and why should not man aim to have it discernible in his work, too? It is governed by laws which are the writing of the Eternal mind, and are more stable than the created universe; then how worthy of man's attention is the art of adornment! Some men are so practical in all of their views of life, that they cannot deem beauty as having a laudable claim upon their attention, and seek for utility in all that they create or improve. Though the works of nature are created for our use; yet, all is symmetrically formed, and is teeming with loveliness; from the towering mountain upon which the clouds recline, to the crystal dew-drop that trembles upon the spire of grass as it glistens in the sunshine.

The rays of the sun which help to crimple golden borders for the clouds; to crimson the hill-top with amaranthine hue; which makes each shrub and tree to give out their soft shadows; also warm the brown soil, so that Mother Earth yields the green herbage and plentiful grain that sustains life in man and beast. The farmer who toils in the open fields may fail to recognize beauty in Creation's fair handiwork, while he deems that plants, trees and fruits are good, because man can use them. But let him lift his eyes above, and watch the silvery clouds in rich contrast with the azure sky, as they float along like winged ships; and at night, when the stars, one by one, come out, till the firmament gleams and glitters with stars, will he then forget that beauty is a twin sister with utility? Perhaps he looks upon the shade tree beneath which the red cattle recline upon a July day, or beneath which he seeks protection from a scorching sun, and lo! he beholds it as a very good treasure, a goodly appendage to his farm! But let him pause, and take up one little leaf which the winds toss at his feet. Let him scan well its organization; see its thread-like fibres, its delicately notched edges, its velvet-like softness, its firm, glossy stem, and its green hue; then let him realize that each tiny leaf is ever assisting to purify the air which it inhales, while it clothes the tree which beautifies the landscape about him, and will he not recognize the combination of beauty with utility? Yes, reader, every shade tree that you plant, feeds upon carbonic acid gas, which feeds upon carbon and oxygen, and the trees absorb the carbon, which is obnoxious to man, and exhale oxygen, which is healthful; thus, when you beautify your grounds by planting trees at a proper distance from your dwelling, you are promoting your own good, although they may cast too broad a shade upon the mowing-lot or meadow near the old homestead.

Beauty is an emanation from God. One writer asserts that, "the fact of a beautiful object's being beautiful, is equivalent to the fact that its beauty is from God."

Bayne forcibly asserts, "that every thrill awakened in us by true beauty is a noble emotion, and when our nature is restored to what it was, or raised higher than before, beauty will beam upon us from every part of God's universe, till then scarcely dreamed of."

Now, since beauty is of such origin, is everywhere about us, and while no occupation of life is so capable of admitting it as the farmer's, is it unworthy of their notice, or of their efforts in creating it? The architect and the mechanic each study to combine adornment with utility, in all their designs and labors. Accordingly as they effect this harmonious combination, so are they estimated. It may, and should be so, with farmers. Regularity, symmetry and order are elements of beauty. Are not order and regularity desirable in farming? Are not nicely arranged fences, deeply and well-furrowed fields, well selected and well kept stock, and thrifty orchards, something which adorn a farm? Is it not for a farmer's interest to make such adornments?

It is also for his interest to have and use pleasant and comfortable dwellings. He should seek to adorn his homestead with graceful shade trees, flowering shrubs and cultivated vines. He should become inspired with glowing enthusiasm in all that is beautiful, useful and refined. Every farmer, his wife and children, should strive to make a harmonious combination of beauty, utility and refinement, until fruitfulness exists where once barrenness and leanness abided, thereby verifying the words of Keats, who said,

"A thing of beauty is a joy forever."

Although our yeomanry are under the necessity of laboring diligently and earnestly, yet they are not justified in disobeying Nature's laws, or in forgetting that God has endowed them and their offspring with immortal minds that require cultivation as much as do their broad acres. Some farmers, who plead that they have no time to read, to improve and beautify their homes, who go on over-tasking nature, fail in their schemes of acquiring an abundance, while they make themselves decrepid, *old* young men.

Yes, old in a physical point, but young in years. They have sons who become weary of home-monotony, of home-drudgery, and turn away in disgust with a farm life. Their fathers have failed to educate them as the times demand, and also fail to elevate their occupation in the estimation of their sons, and too often are left alone upon the old homestead in their declining years. But the intelligent farmer who studies for improvement, who has not infringed upon nature's laws, steadily increases his wealth, and old age sits gracefully upon him, as he retires to his arm-chair, to allow the son of his youth to stand at the helm. In such farmers' homes, we find fathers and mothers looking with eyes dim with grateful tears upon their offspring, who till the fields and cull the roses which they cared for in youth.

Beauty is something which is considered as belonging to woman. Refinement is what ought to characterize her, in her intercourse with her family and in society. While the yeomanry of our land should make a law like the Medes and Persians, that beauty, utility and refinement shall exist among themselves, their wives and their daughters should "act well their part," in the good work that pertains to the occupation which their fathers and brothers pursue.

Much has been said upon the want of refinement in our farm-houses. It is well that the subject has been agitated. It will awaken new thought upon the subject, while it will give rise to action in the cause of improvements. Perchance, some have not thought that the introduction of literary periodicals, volumes of poetry, scientific discussions and essays, religious and moral papers and books, and agricultural reports would shed a halo of brightness around the "old home." But let each farmer patronize the book-seller, and let him subscribe for periodicals and papers, till he has planted them profusely within his home, and see if they are not as productive of good as the planting of corn, potatoes, and the foreign seeds from the Agricultural Department at Washington. Love of music ought also to be encouraged. Let the echoes of song vibrate the heart strings, and let it ring in the farm-house. Money that is invested in books, and in promoting intelligence and true refinement in a farmer's home, is better than an investment of hoarded money in a bank at six per cent. interest. The mind ever pays well for all efforts to enrich it, in all grades of society. Mind is immortal. Money is perishable. Money never clinks beneath the coffin-lid so that it makes music to the dead sleeper who once possessed it. As minds are expanded and improved upon in time, so will they be elevated and rejoice in eternity, if faith and forgiveness secure to them an entrance into Heaven.

Sheep in Texas.—There is a sort of mania, just now, about sheep in Texas. The start made a few years ago by G. W. Kendall—and his success, after going through all the phases of ill luck, losses and discouragements—which perseverance overcame—has induced many others to establish great sheep-farms in that State. Maj. Wm. Leland, one of the proprietors of the Metropolitan Hotel, in this city, is one of the number who has followed the lead of Mr. Kendall, with every prospect of success. There is, beside the fine wool-flocks established in Texas, a constant, and large importation of the coarse wool-sheep of Mexico. It is estimated that a fourth of a million of Mexican sheep have crossed the line into Texas, since the first of 1859—and the number is constantly increasing. These Mexican sheep are crossed with Northern stock—and make a valuable progeny, both for wool and mutton. We shall expect, before many years more, to see Texas mutton sheep in the New York market, more frequently than we now see Texas beef-cattle—and that they will be much better liked, both by butchers and mutton-eaters, than the bullocks are.—*N. Y. Tribune.*

NEW YORK STATE AGRICULTURAL SOCIETY.

We have before us the eighteenth volume of the transactions of this Society, giving its operations for the year 1858. It is a handsomely printed volume of 850 pages, and is the *thirtieth* volume of the society, prepared under the direction of its able and accomplished Secretary, B. P. Johnson, Esq.

After a brief "notice" from the Secretary, in which he lays the volume before the "farmers of New York," the book opens with a report from the Executive Committee of the Society, in which they give a brief recapitulation of the leading transactions of the year. It is the full report of these transactions that makes up the volume. This report gives, in a condensed form, the condition and progress of agriculture and the mechanic arts throughout the State, as illustrated in the operations of the agricultural societies of the State. They say, that, upon the whole, the year of 1858 was a successful one to the farmers, and that a very commendable advance has been made in every department of agriculture. "We want"—say they—"to increase the number of well educated and intelligent agriculturists—men who are, in every respect, as well qualified for all the varied operations connected with agriculture, as are the men of other professions, who have been duly prepared for their pursuits."

On speaking of the *wheat crop* of the State, they say that investigations into the habits of insects has established one principle, viz:—that "where land is properly dressed and cultivated there is less liability of damage from insects, than where the land is poor, and the crop is neglected." This is undoubtedly true, as it is in the case of poor or diseased animals, who are sure to be attacked by vermin long before the healthy and vigorous cattle of the herd are. This is in compliance with a law of nature, who abhors a deformity as well as a vacuum, and sets immediately to work to put it out of sight! Lean and sickly crops, and lean and sickly kine, are

at once attacked by insect scavengers to hide the deformity from the fair face of the earth. But when the committee endorse the theory of Professor HIND, of Trinity College, Toronto, and English writers, who recommend "*good husbandry* as among the remedial measures to arrest the progress of insects," we think they do not, to say the least, give the true cause of the increase of insects. They say, "high farming is as destructive to vermin as to weeds, and it is *rarely* that the devastation committed in highly cultivated land *is very serious.*"

We believe that the reverse of this is the case —*that high farming produces insects—that it feeds and shelters them, and produces the condition of things best fitted to a rapid and wonderful increase.* This, too, is in accordance with a natural law. The forests of certain sections of country sometimes yield no mast, or nuts, for several years in succession, so that the animals that enlivened their tops all disappear. At length they blossom again, and lo! long before the fruit has matured, the forest is vocal with the hopeful sounds of its old denizens, waiting for their accustomed food. And so is it with the grasses on the prairies—it is the plentiful crop that increases the destroyers, and not the lean and hungry ones.

We should aim to secure large and healthy crops, notwithstanding—but must set our wits to work to devise the ways and means to prevent their destruction by insects. But we certainly have done much that is favorable to their multiplication and vigor, in increasing the varieties and excellence of our crops. When apple trees were few, the fruit small, gnarly and almost as hard as flint, and the leaves were small, tough and wiry, we had but few curculios; but now that the cultivated apple is juicy and tender, the curculio finds it so admirably adapted to its purposes of propagation that scarcely an apple is left untouched by this tiny depredator; and so the caterpillar finds the leaves of the apple tree large, succulent and tender, and the very food it requires in order to sustain millions of its kind. So the tender leaves of numerous other fruits, as well as the great variety of vegetables which we have been pleased to introduce into our gardens and fields and cultivate, contribute to the aid and comfort of numerous insects, as well as to the gratification of our own appetites. Life, in this respect, as in many others, is a continued warfare. It is so between us and the insects, and between them and us. Who shall gain the mastery? They, by their instinct, or we, by our reason?

The committee then refer to the want of a more uniform and systematic mode of collecting the statistics of agriculture, so that we may better know the number and value of our stock, of all kinds, and how to form a general estimate of average crops raised. They also speak of *Agricultural Associations*, and quote high authorities in their favor. The *Sorghum* or *Sugar Cane*, and *Steam Plowing* are considered, and the importance of a choice *Agricultural Library* is dwelt upon with considerable emphasis.

Their address last year was given by JOSEPH R. WILLIAMS, President of Michigan Agricultural College,—it occupies some thirty pages, and was of so excellent a character as to be very generally published in the agricultural papers during the last winter.

The next paper contains extracts from an address by Prof. NORTH, on "American Trees and Tree Planters," and is full of excellent facts and suggestions. He says that trees make generous returns for the room they occupy. The destruction of trees not only diminishes the absolute quantity of rain, but prevents its accumulation in springs, shaded valleys and swamps. A bare hill-side will shed water like a roof. Let the trees remain as nature intended, and the same soil becomes a sponge, absorbing the rain as it falls, and sending it down little by little to the thirsty lowlands. He gives an interesting account of the leading men who have presented the claims of trees, beginning with JOHN BARTRAM, who founded the first botanic garden in this country, on the banks of the Schuylkill, and mentioning ANDRE MICHAUX and his son, WILLIAM COXE, of New Jersey, DOWNING, M. P. WILDER and H. W. SARGENT. In confirmation of our theory about the increase of insects, and the state of warfare we are in, he says—"Every valuable tree has its enemies. The more useful the tree, the more numerous, busy and implacable its foes."

The retiring President, WILLIAM T. MCCOUN, made a speech in which the subject of steam as a motive power on the farm was very ably discussed,—and then the newly elected president, ABRAHAM B. CONGER, made short, congratulatory remarks upon taking his seat. In a general discussion at another time, Mr. CONGER made an earnest address to the farmers to abandon the exhaustive process of feeding mainly on hay and adopt the root cultivation. He believed in the English dogma, that without roots for food, there must be few cattle; that with few cattle there must be little manure; and with little manure there must be light crops.

The report of the committee on *Dairy Farms* is a long and interesting one. We notice that the result of inquiries among dairymen, as to the amount of milk required to make a pound of butter, was stated at *fourteen* quarts. Colonel Pratt's dairy, of 50 cows, in 1857, was *twenty*

quarts; in 1858, *sixteen and one-sixth* quarts. It seems to us that the lowest number is a large one.

Then follow papers on "Experiments with different Manures on permanent Meadow Land," on "Draining," on "Potatoes," on "Winter Fruit," on "the Culture of the Cranberry," on the "Wheat Midge and Hessian Fly," on "Wheat and Chess," and then one on the "Edible Fishes of New York," by Robert L. Pell. This report gives a brief account of the fish common to the rivers and inland streams of the State in a very attractive style. Mr. Pell cultivates fish—as well as apples—and says,—"I am convinced that an acre pond, well stocked with pike, would yield more profit than a ten acre lot under ordinary cultivation."

A short chapter is devoted to the New York State Agricultural College, and then comes a long, practical and interesting chapter upon *Fences*, by S. Edwards Ladd. The subject is discussed under various appropriate heads, and embraces every kind of fence resorted to, including wire, stone, picket and hedge fences.

Following this are one or two hundred pages of miscellaneous matter, and the volume closes with the fifth report on the noxious and other insects of the State of New York, by Asa Fitch, entomologist to the Society.

We have now, briefly, brought to view the varied contents of this interesting and highly useful volume. It has not been made by an individual, but by many individuals, and the extended interest that has been secured to produce such a work must be a lever of great power in the State. To say that the work is as good as its fellows that have preceded it, would be saying much; but in some respects it is better. We hope the Society will continue its surveys of counties.

Mr. Secretary JOHNSON will please accept our thanks for the volume which has enabled us to make these remarks, and to complete our set of this highly-valued work.

OYSTERS AND STAR FISH.

The oyster beds in Providence river have suffered severely from the attacks of star fish, which, in some instances, have destroyed hundreds of dollars worth of oysters. The manner in which the star-fish contrive to carry off the delicate morsel contained within the shells of healthy oysters, has been more or less a conjecture. By many it has been supposed that the star-fish closes its arms over the shell, and so starves the oyster to death by refusing to let it open its mouth for food. An old supposition was to the effect that the star-fish succeeded in inserting a ray or finger into the gaping shell, and if it found the bivalve too strong for it, got rid of the difficulty and the ray at once, conscious of its power of reproducing another; which conclusion may have been drawn from the fact that the star-fish readily parts with its rays to preserve its body, reproducing them again very speedily. Star-fish have been detected in the act of sucking the juices of bivalves through perforations, and also with their mouths applied to the edges of the valves. From the apparently paralyzed state of the bivalves found in such situations, it has been conjectured that the star-fish introduces some deleterious secretion within the valves, and thus leaves the mollusk torpid, and deprived of the power of closing its valves against the attacks of the destroyer. But it is not on living prey alone that the star-fish feeds. Is seems to assist materially in cleansing the sea from dead and decomposing animal matter. A human tooth has been found in the stomach of a star-fish. Its mouth and gullet are admirably adapted for securing the animal substances on which it feeds. When the prey is apparently disproportioned to the parts into which it is to be conveyed, the œsophagus, or gullet, together with parts of the stomach itself, can be protruded and everted, so as to draw the desired food into the cavity by the application of the inverted surface to it. Thus small shell-fish are swallowed whole, and specimens still living have been found taken from the cavity.—*Newport Mercury.*

ABOUT BARNS.

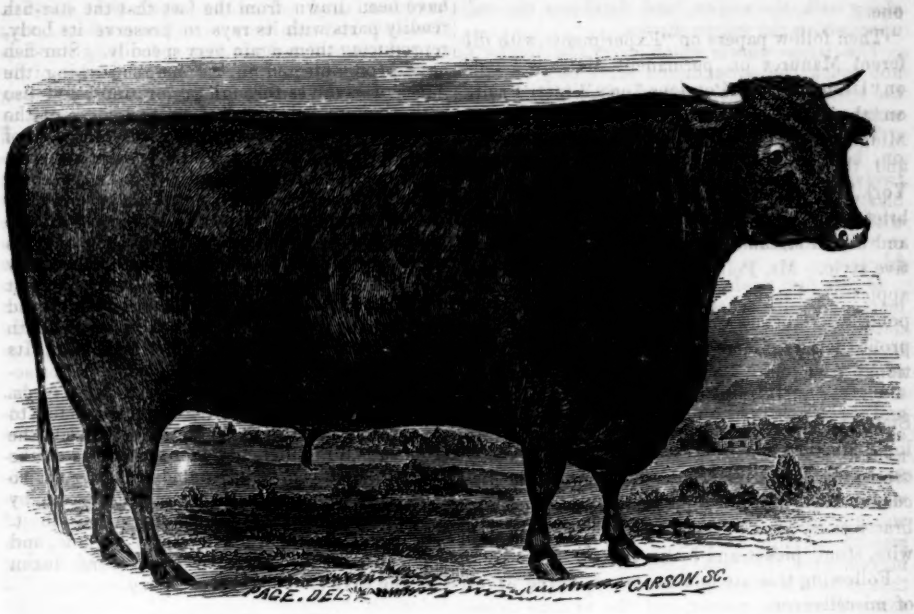
The careful attention of the reader is called to an article in another column, on *the form and manner of constructing barns*—a subject of the first importance to the farmers of New England. We do not mean to be understood as assenting to all that "J. W. K." says in his article—it may all be right, but we should rather see a barn so constructed before recommending them to others. His ideas, however, strike us quite favorably, and when we once had him "in our leanto," some years ago, had we known that his mind run so strongly to barns, we certainly should have detained him an hour or two to discuss them.

That our barns are too expensive in their first cost, too liable to rapid decay, and inconvenient in their arrangement, we have long been convinced, and our correspondent has our hearty thanks for giving the subject so much consideration, and for giving us an opportunity to communicate his views to the public.

LICE ON CATTLE.

Take white oak bark, boil it in water—making a strong decoction; wash the animals on the back and on the sides. In twenty-four hours the lice will be completely tanned. Tanner's oil is also first-rate.

REMARKS.—If you try this, use it with moderation, as all decoctions of this kind are of a powerful nature. You would not like to tan the whole creature while living.



A FULL BLOOD DEVON BULL.

The lover of good cattle will scarcely be able to forbear a criticism of the above symmetrical and every way beautiful portrait. Look at the head, and see what a brilliant eye it has, what slender and clean jaws; then glance at the legs, fashioned as though cut out in a modern lathe for turning irregular surfaces, and then at the extreme appendage, so small, long and graceful! Look at the straight back, the short neck, the powerful shoulders and brisket, and every part filled with muscle or fat, all so attractive that an alderman's mouth might water upon beholding him.

This animal was bred by Col. L. G. Morris, of Mount Fordham, N. Y., and is the property of the Hon. John Wentworth, of Chicago, Illinois.

As oxen, the Devons make as good as ever need to be yoked—there are, perhaps, none better. They are strong, docile, quick, have good length of legs, are excellent travellers, and are handsome; and when done with the yoke, they make most capital beef.

Devon cows, as milkers, are frequently of a high order, having all the good points and qualities of the best milch cows. Occasionally there is one giving milk of the richest quality. They are preferred by some to all other cows for the dairy—but as a general thing, do not stand quite so high as the Ayrshire.

MILLER'S STEAM WAGON.

In Marysville, Cal., a steam wagon has recently been put in operation, and is represented to have proved a complete success. It is designed for travel on common roads, and to do heavy work with great power and steadiness. Mr. Miller, the inventor, has been constantly engaged for the last two years in improving the mechanism of his wagon, and in satisfying himself that the principle of his invention was correct. As is usually the case with inventors, he has struggled with many difficulties, but has at length, as we learn, the satisfaction of seeing that his labors have resulted in producing a new and valuable means of locomotion. We compile the annexed description of the wagon:

It is twenty feet long, by seven and a half feet wide, and is driven by a fifteen-horse engine, geared to work up to thirty-five or forty-horse power. It is constructed to move on endless tracks, that are laid down and taken up as the wagon proceeds.

These tracks are carried round on large wheels, of five feet diameter, to which motion is given by the engine, and the weight of the wagon is supported on small truck wheels of two feet di-

ameter, which rest on the tracks. These tracks thus form a movable railroad, which is carried along with the wagon, and furnishes the rails upon which the wagon moves.

The large wheels which carry the tracks do not touch the ground, and serve only to move the tracks under the small wheels, which bear the weight of the whole machine.

The two tracks, one on each side of the wagon, have a bearing surface on the ground of twelve feet long by four inches wide, which enables the wagon to pass over soft or sandy soil without sinking into it, and hence without any or very little loss of power by reason of increased friction.

On its first trials, the wagon was put to many tests, and with success in all. It ascended and descended steep grades, as high as one foot in height; it ran over soft ground without any loss of power; and hauled loads, under the circumstances, equal to fifteen tons, at two and a half and three miles per hour. It was as easily turned as any mule team, started as readily as a locomotive, and was stopped in a shorter distance. Some persons expected that the motion of this wagon would be rough and unpleasant—but it was not found so, as the wheels run on the smooth metallic surface of the tracks, and the movement of the tracks themselves is the same as that of a belt passing over two pulleys of the same diameter.

For the New England Farmer.

THE WEATHER OF THE SUMMER MONTHS, 1859.

Clouds and rain, and cold nights, were the prominent characteristics of the weather of *June*, rain falling on fifteen days, including six thunder showers; and, according to observations made by Mr. J. Weatherhead, at the U. S. Armory, in this city, 6.38 inches of water fell on a level. Three frosts occurred during the month; on the mornings of the 6th, 11th and 12th, the first and last being very severe over the whole northern parts of the United States, with occasional exceptions. That on the 12th was the most severe in this section, doing great injury, not only to crops, but to vegetation in general. The grass, and leaves of plants and shrubs were frozen stiff, in many localities, and the ground, (in moist, plowed fields,) was frozen to the depth of one-fourth to one-half an inch. Ice formed in favorable situations. At sunrise, the thermometer stood at 34°, at my usual place of observations, but upon carrying it to low, marshy ground, some thirty rods distant, the mercury fell to 29°, while suspended in a *frozen bush*, and this in "rosy June!" Many gardens seemed nearly ruined, beans being almost universally killed, and corn and potatoes, in the fields, were greatly injured. In some instances, the leaves and young growth of the grape vine and white oak were blackened and killed. The weather throughout the month, with the exception of a few days, was so cold that vegetation advanced very slowly, and so wet that farmers were obliged to lose much time in consequence of the rain. At the close of the month, they were nearly a week behind-hand in their work, and the prospect for a corn crop was very discouraging.

July, however, was pleasantly interspersed with sunshine and rain, moderate heat, agreeable coolness, and refreshing north-west breezes. Drought and rain were so well apportioned, that vegetation suffered not from a too long continuance of the former, nor a superabundance of the latter, and the season for haying and harvesting was very good, though somewhat interrupted by showers towards the close of the month, and if the crops were not remarkably heavy, the farmers enjoyed the satisfaction of saving them in prime order. The weather was very cool about the 4th and 5th, and frosts were reported in some sections, as occurring on the night following the 4th, but of not much severity. There was extreme heat for only a few days, from the 10th to the 14th, the mercury reaching 96° at one P. M., on the 13th; but the last ten or twelve days had the pure atmosphere and agreeable coolness of September.

The weather of *August* was, in many respects, fine, being remarkably clear, with but little sultry weather or extreme heat. The first fourteen days were quite warm, however, their mean temperature being 70 09°, but the remaining seventeen were very cool, and occasionally to an unpleasant degree, and the mean temperature of this part of the month was 63.06°. A few times the maximum temperature was above 80°, during the fore part of the month, but as frequently fell below 68° towards its close. Three light white frosts were observed on low land, on the mornings of the 17th, 29th and 30th, here and there leaving traces of their effect on tender vegetation, but no serious injury resulted. About an ordinary amount of rain fell, more or less falling on eleven days, but there was a period of ten days, from the 13th to the 24th, without rain, and symptoms of a drought began to be manifest; and reports from many sections of the country represented vegetation as suffering considerably.

The weather throughout the season was quite unfavorable for the farmer, and rendered his prospects for a good corn harvest quite gloomy, and, at times, very uncertain. The frosts of June were very extensive and destructive, and many fields of both corn and potatoes never fully recovered from their effects. The consequence resulting therefrom to rye and wheat was for a time doubtful, but, at harvest, the damage proved to be slight, exhibiting itself occasionally in the half-filled heads of the former, in many fields, while a few pieces were wholly ruined. The light frosts in August again threatened great injury to corn, and other late crops, but fortunately the apprehensions of farmers were not realized; so the season afforded the novelty of frost in each of the summer months, without very disastrous results. Corn at the close of August seemed to indicate a fair crop, though very late; from ten days to two or three weeks of warm weather being then necessary for its maturity in this vicinity.

The mean temperature of the summer months was 65.6°; of June, 62.95°, being seven and a half degrees lower than the mean of June, 1858, and only about five degrees warmer than May; of July, 67.53°, being 42° colder than July, 1858, 3.2° colder than July, 1857, and 6.3° colder than July, 1856, which was remarkable for its great heat and dryness; of August, 66.31°; from .06° to 1.16° warmer than the three Augusts pre-

ceding. The mean temperature at sunrise was 55°; at noon, 72.73°; at three P. M., 74.16°; and at sunset, 65.23°. Of June, at sunrise, 47.47°; at noon, 68.83°; at three, P. M., 69.9°; and at sunset, 61.9°. Of July, at sunrise, 57.71°; at noon, 75.81°; at three, P. M., 77°; and at sunset, 65.68°. Of August, at sunrise, 57.78°; at noon, 73.55°; at three, P. M., 75.48°; and at sunset, 68.13°. The mean sunrise temperature varies but slightly from the mean minimum, and the mean temperature at three, P. M., as here given, is the true mean maximum.

The warmest day in June was the 29th, the mean temperature being 74.67°; in July, the 12th, with a mean of 80.83°, which was also the warmest of the season; in August, the 4th, with a mean of 76.33°. The coldest day of June, also of the season, was the 11th, with a mean temperature of 45.67°, and at nine o'clock, the thermometer stood at 49°, and at noon at 52°, though the sun shone clearly! Several other days were uncomfortably cool throughout. The coldest day in July was the 4th, the mean temperature of the day being 54.67°, and in August, the 29th was the coldest, the mean being 54.83.

The extreme temperatures occurred as follows: highest in June, 91°, at eleven, A. M., on the 29th; in July, 96°, at one, P. M., on the 13th, also the highest of the season; in August, 86°, at three, P. M., on the 4th. The lowest in June was 34°, at sunrise on the 12th, which was also the lowest of the season; in July, 44°, at sunrise on the 5th; in August, 40°, at sunrise on the 30th.

The summer of 1859 was 3.34° colder than the summer of 1858, and 16° warmer than the summer of 1857.

Rain fell on thirty-six days; on fifteen in June, ten in July, and eleven in August. Fourteen thunder showers passed over this place, ten of which were from the north-west; six in June, five in July, and three in August. A remarkably heavy shower occurred on the 29th of June, and in some parts of western New England, was very destructive from hail and wind. The whole north-west presented one mass of inky blackness as it approached, and when ten miles distant, columns of dust began to rise at different points, soon spreading along the whole front of the shower, rolling up like dense smoke to the height of several hundred feet, and truly presented a somewhat alarming aspect. In a few minutes after the shower commenced, water ran in the streets in brooks. Hail also fell on the evening of the 26th of July, from the size of a pea to that of a hazel-nut. But the wind rising light at the time, no serious harm resulted, though the marks were visible for several days, on tobacco and corn.

Of the ninety-two days of summer, twenty-nine were clear, twenty-eight tolerably clear, sixteen cloudy, and in the remaining nineteen, clouds prevailed. There were but five clear days in June, ten tolerably clear, and fifteen quite cloudy. In July there were ten clear days, eleven tolerably clear, and five cloudy, and five considerably so. In August, there were fourteen clear days, seven tolerably clear, but three cloudy, and seven others more or less so.

There were forty-six days of wind from a northerly quarter, and forty-three from some southerly point, as follows: Thirty from the north-west, fifteen from the north-east, and two from the north; twenty-six from the south-west, thirteen from the south, and three from the south-east, and six days of calm. In June, there were nine days of wind from the north-west, two from the north-east, two from the north, twelve from the south-west, five from the south, and two days of calm. In July, thirteen days from the north-west, five from the north-east, seven from the south-west, two from the south, one from the south-east, and four days of calm. In August, eight from the north-west, eight from the north-east, seven from the south-west, six from the south, and two from the south-east.

I noticed ten solar halos, which, save in one or two instances, were followed by a storm of rain on the succeeding day.

I also noticed three Auroras, or displays of "Northern Light," all in August; that on the 21st was fine, but the one on the night of the 28th was truly splendid, and in many respects remarkable. It became visible as soon as twilight had sufficiently faded, and continued all night, with brilliant streamers of crimson, golden yellow, and various shades of red, yellow and greenish. J. A. A.

Springfield, Sept. 2, 1859.

THE NATIVITY OF INDIAN CORN.

An intelligent article in the Cincinnati *Gazette* discusses the question of the nativity of Indian corn, or maize, which was one of the subjects before the American Scientific Association at Springfield. It will be recollected, perhaps, that Dr. J. H. Gibbon read a paper in which he contended that maize was not solely a native of America, but was also the product of Asia and Africa. He contended that it was known to the Egyptians, and that the manna which is said to have fallen from heaven for the sustenance of the Israelites, was maize, which did not literally rain down, but which was found along the way.

The article in the *Gazette* contends that maize is a native of America alone, and cites the evidence of Dr. Pickering, who says:

"Whether the maize was introduced into Egypt from the East or West, I have met with no evidence that the plant existed in the country prior to the discovery of America."

The writer also cites the evidence of Livingstone and Booth in proof of the fact that maize was not found in Africa, and contends that it was not known in Europe until 1332. Admitting that maize might have found its way to Japan across the Pacific, the article says:

"The points may be considered settled by positive testimony—that maize is a native of America, and that it is not a native of Europe. Our inquiry, therefore, is confined to Asia and Africa. Still it is important to observe that in Asia and Africa were the first settlements of mankind, and of them we have by far the earliest and most authentic testimonies, to say nothing of those memorable monuments on which is inscribed much of the domestic manners, and history of the ancients. If then the civilization of Asia and Africa knew anything of Indian corn, or potatoes, or buckwheat, or turkeys, is it possible that no evidence of them should exist in those histories or

monuments. Therefore it is that we consider the negative evidence as completely overwhelming. It is made conclusive by being entirely exclusive. Let us turn to the Mosaic account—the ruins of Nineveh and the monuments of Egypt. We find evidence of the existence of barley, and wheat, and beans, and onions, and lentels, but where is there any evidence of maize or potatoes? Indian corn is one of the most remarkable and easily described plants known, and yet all ancient history is silent on its existence. Where is the evidence? Wheat was found among the mummies. The entire absence of any sort of evidence, is, to our mind, conclusive of the question. But this is not all. The classic ages of Greece and Rome had intelligent writers on agriculture, and Rome brought from Africa a large portion of her supplies. Now, if Carthage or Egypt or Assyria, had ever known or heard of Indian corn, would these writers have been totally silent on so interesting a plant? Nor is this all. De Goguet, a learned French writer on the origin of arts and sciences, has collected all that the ancient writers say, and all that tradition asserted of ancient agriculture, and not one word is there about Indian corn. There is additional significance given to the fact, that wherever Indian corn, is introduced, it is an important plant. It is not a thing to be overlooked; and yet all ancient history is silent in regard to it. We conclude, therefore, with Dr. Pickering, that there is no evidence of the existence of this plant prior to the discovery of America."

Where the Grasshoppers go to.—We are glad to know that this jumping fraternity are to be destroyed in some way. The Port Hope (Canada) *Guide* says they are falling a prey to a grub very similar in appearance to the weevil. On examination they are found covered with these small but formidable enemies, the strength gradually departs from the joints of the strongest, and they die. It is said that the grasshoppers may be seen in myriads, "stark and stiff," in the fields, while those alive are so dull and inactive that they can do but little mischief to the green crops. Some farmers assert, with all sincerity, that the weevil, appearing too late to successfully attack the fall wheat, pounced upon the grasshoppers, then young and tender, and will destroy them instead of the grain. If this should prove to be the case, it will be one of the most extraordinary circumstances on record.

Costly Cranberry Meadow.—Capt. Capon has expended one thousand dollars upon a single acre to bring it into cranberry meadow, and with the strong expectation that it will be a good investment. This is the most costly acre of cranberry land that we have ever heard of. If it will pay thus to fill in deep swamps, and then give them a coat of three or four inches of mud, with a top-dressing of sand, it is quite evident that those who have little else to do to their meadows but break them up with a plow, and set out the vines, ought at once to be about it. A situation where the meadow can be flooded until June or July is thought to be best, but there are different opinions, we find, in regard to the whole theory of cranberry culture.—*Barnstable Patriot.*

LOVE IS EVERYWHERE.

[We find the following in an English paper, a waif floating about, whose paternity we should be glad to state if we could. Please read it, remember it, and let its sentiment ever be present with you, so that *your* love, also, shall be everywhere.—Ed. *N. E. Farmer.*

LOVE IS EVERYWHERE.

The air is filled with a gentle song—
An under song of wooing—
As the leaf-enshrouded woods o'erflow
With the sound of the ringdove's cooing.
In Nature's deepest haunts,
I hear a voice that chants:
"Why should the earth grow old with care,
Since Love, sweet Love, is everywhere?"

Ye will hear at night, if ye listen well,
Music in heaven ringing,
And amid the stars a melody,
As of angel voices singing;
For the spirits who in the spheres of light
Have made their happy dwelling,
To each other across the depths of space
Their tales of love are telling.

The sunbeams leave their glowing throne,
And whisper love to the flowers;
The birds outpour it in their strains,
As they sit in their rose crowned bowers.
When the breeze swells mournfully,
Through the boughs of a swaying tree,
I ever hear a voice declare
That "Love, sweet Love, is everywhere.

In the moaning thunder of the waves,
That dash on some rocky shore;
Or the tuneful flow of the ripply tide,
When a tempest's rage is o'er—
In the murmured music of the brook
As it rushes the sea to gain;
Or the sullen plash on the silent pool
Of the swiftly falling rain—

In the gleeful laugh of the dancing spray,
From some skyward-leaping fountain;
Or the ceaseless roar of a white cascade,
In its giant-bound from the mountain—
There falleth on mine ear
This song so sweet and clear:
"Ah, why should man e'er feel despair,
Since 'Love, sweet Love, is every where?'"

For the New England Farmer.

LOOK TO YOUR APPLE TREES.

Among the numerous insects which attack the apple in wood, bark, leaf and fruit, there are none doing more damage, or likely to ruin more young trees in this locality, than a bark grub or borer.

This grub, which for want of a better name, I will call *Bark Borer*, is of a whitish color, without legs, tapering but little from the first ring. The head is broad and flat, nearly twice the width of the body. When full grown, they are an inch in length, with a head one-fourth of an inch broad, and no thicker than the body.

The eggs are deposited in June, July, or early in August, upon the bark of the body of the tree. When hatched, they eat into, and through the bark where they remain over winter. The next spring they feed between the bark and the wood, and attain their full size in May or early June. Of their transformation I cannot speak advisedly.

The bark borer is undoubtedly of the same family with the borer from the larvæ of the two-striped saperda *(saperda bivittatti)* which attacks the apple tree, quince, white ash, mountain ash, locust, and various species of thorn, at or near the ground. Young trees from one inch to four inches in diameter, are preferred by the bark borer, and if they are crooked, or lean to the north or east, they are more liable to be attacked. The grub seems to poison the tree, and the bark dies faster than it eats.

At this season they have not got through the bark, and are from one-fourth to one-half inch in length, and are usually found doubled like a fish-hook. Their location is ascertained by the dead, black look of the bark, and if they are not dislodged, your tree is ruined. My method is to cut them out with a sharp knife and then wash the tree with a liquid recommended by Prof. Mapes, which is made by the following recipe:

Sal Soda 1 lb. Water 1 gal.

Heat the sal soda to a red heat, then add the water.

J. R. WALKER.

Springfield, Vt., Aug. 20.

RAIN WATER—UNDER-DRAINS, ETC.

The following article is full of useful truths, but the writer, in enumerating the sources from whence the soil receives water, has failed to notice that portion received from dews and from condensation upon the surface of cold particles, from the atmosphere circulating in the soil. The fact that the surface evaporation of water reduces the temperature of soils, and that such loss is prevented by under-draining, is fully proved. The loss of ammonia and nitric acid by drainage water is, however, over-stated, as, when the drains are sufficiently deep, the loss of these ingredients is no greater than would occur in undrained lands by the same ingredients sinking below the level of roots, while in the drained lands the reception of nitric acid and ammonia from the atmosphere is increased much more than equal to the quantity parted with by the water.

Whatever be the sources of the influence exerted by the rain upon the soil, it is only as the soil enables it to reach the roots of plants that it can act for good. Let us, therefore, consider the means of its access to the plants growing on the soil.

Water can get into the soil in three ways—1st, as rain falling directly on its surface; 2nd, as in the case of spring-water, rising from below, where there is a direct connection between the soil and a reservoir at a higher level; 3rd, by that surface attraction of matter for it, which, as exhibited by porous substances on water lying beneath them, is called capillary attraction. And it is plain that any attempt to drain a field must be guided by all three of these considerations. The quantity of the rain-fall, added possibly to an additional supply from beneath, and both held with more or less tenacity by capillary attraction within the soil, is the agent which you wish by means of drainage, we will not say to get rid of, but to direct to useful ends in the growth of your plants.

Again—water can leave the soil in three different ways: 1st, by running over its surface; 2nd, by evaporation from the surface; 3rd, by percolation through its substance. And let us consider what the water does and does not do when escaping from the land in each of these several ways.

1.—In the first, when running over the surface of the land, it is of course inoperative. It is wanted to dissolve food out of the soil and feed the plants upon it. It is wanted to bring its own supplies, such as they are, from the air for the nourishment of these plants. It is wanted to break up and comminute the soil by its passage through it. It is wanted for the sake of its own dissolved oxygen and carbonic acid, as well as for the same ingredients in the atmospheric air which follows it in its passage downwards, both of these substances acting usefully in the laboratory of the soil. And it is wanted especially in the spring time for the sake of the temperature of the spring showers, which, if they could get into the land, would warm it. None of these things can it do. It runs off the surface without penetrating it, and its influence as well as want of influence are shown in the case, which often happens, of rain-water falling on a frozen field. If it could gain access to the substance of the soil, the whole furrow slice would at once be thawed, and we should have vegetable growth recommencing earlier. If it could make its escape through the soil instead of over it, we should avoid those surface currents which wash the finer particles into the furrows and the ditches. The *fertilizing* influence of a *constant* surface current seen in the water meadows is perfectly consistent with the mischievous influence of the state of things with its occasional surface currents seen in every undrained field. The former coexists along with an escape of water through the soil, for a constant drainage is as necessary as a constant water supply to successful irrigation.

2.—But let us now consider what the water does during its escape by evaporation. In the first place it is worth while remembering as being among the comparatively indefinite results of evaporation from the surface of the soil, that in this way great loss ensues of the nutritive substances which the water held in solution. It is very true that some theorists contend for what they call the leaf-feeding of plants, and urge that all the benefits of cultivation during the growth of plants arise from the extension of this evaporation, by which the leaves of the growing plants thus obtain a more abundant supply of food; but we believe that our object in cultivation should rather be to increase the stores of food within the soil, and that tillage operations have this tendency by increasing the quantity of absorbent surface within the soil which is exposed to the air.

The principal result, however, of the loss of water by evaporation is indicated by the fact that during the conversion of every pound of it into vapor, as much heat is consumed and lost as would be produced by burning 2 or 3 ounces of coal; and when you think that an ordinary rain-fall amounts to 3000 tons per acre per annum,

you can easily conceive that the loss of heat by the evaporation of a comparatively inconsiderable portion of this must involve a great cooling of the land. If thirty inches of rain were evaporated in this way, it would need 1 cwt. of coal per hour per acre through the year to make good the loss of heat sustained in this way; a quantity which, in Dr. Arnott's hands, would give us an Italian climate. The quantity, however, actually lost by evaporation is of course nothing like this; a great deal of water finds its way through the land. The water supply of all our springs and wells, if that were known, would indicate its quantity for the island. A great deal escapes in flood times by running over the surface, and a great deal now finds its way out of drains after percolation through the soil. Notwithstanding these causes, however, and notwithstanding the extremely irregular character of the rain-fall, the loss by evaporation must be very considerable. Dalton measured the quantity of water escaping from two rain gauges, one of an ordinary kind, and the other filled three feet deep with earth, and he found that of thirty-three inches of rain which fell per annum as indicated by the one, only eight and-a-half passed through that quantity of earth as indicated by the other, and he concluded therefore that the difference between the two—twenty-five inches, or three-quarters of the whole annual fall—escaped by evaporation.

Mr. Dickinson, of Abbot's Hill, near Kings Langley, has for several years copied Dalton's experiments, with results somewhat different from his; finding that of twenty-six inches per annum fifteen were evaporated, while as much as eleven, rather more than two-fifths of the annual rain-fall, passed through the soil. His results, however, probably exaggerated the quantity of the rain-fall which in general passes through the land, for it is plain that earth loosely placed in Dalton's gauge is much more likely to transmit the rain which falls upon it than the same depth of earth can be in ordinary circumstances, the lower half at least never having been disturbed since the Deluge. And in fact the attempt of Mr. Milne Home to ascertain the truth upon this point, by measuring the water actually escaping from the mouths of drains in a field of a given extent (though it on the other hand was liable to an opposite error, because it could not take account of what went through the land altogether to feed the wells and springs of the neighborhood,) leads to the conclusion that a much less quantity of water than either Dickinson or Dalton indicates, passes through the land in the course of the year. And it would appear from this that the loss of water by evaporation even in well-drained soils is considerable, and therefore that the loss of heat by evaporation is to a great extent unavoidable.

3.—Let us now, however, consider what water does by percolation; and its effects here we must do little more than enumerate. They are shortly these: It carries the temperature of the air into the soil, a thing the possible injury of which, as in autumn and winter, when the air is colder than the soil, is as nothing compared with the benefit of it in spring, when the air is warmer than the soil, and when the advantages of early growth are great. The most important experiments which we know, proving the influence of drainage on the temperature, are those described by Mr. Stephens in his exceedingly instructive little book descriptive of the Marquis of Tweeddale's operations at Yester Mains, where, the temperature of soil being 40 deg. in its undrained state, the cutting of a drain near it and the setting in of a current through it, raised its temperature 1½ deg. in six hours.

Another effect of water percolating through the land is seen in the introduction to it of the atmospheric elements which it holds in solution. The carbonic acid by its operation on the alkalies and alkaline earths is a powerful solvent and disintegrator, and the oxygen keeps in check the deoxydating effect of vegetable matter in the soil, which in its absence tends to reduce the higher state of oxydation of the iron present in the soil into the lower state, when it does mischief by forming with acids in the soil soluble salts injurious to vegetation.

But the main purpose served by water during its percolation through the land is that of feeder of the plants. A fertile soil, cultivated so as to exhibit its fertility in the most profitable manner, has growing upon it crops whose habit and specific character are adapted to the climate in which they are placed, and to the character of the soil itself—it yields these crops in the order in which each succeeding to the cultivation of its predecessor shall find the soil, chemically as regards its contents, and mechanically as regards its texture, and practically as regards consequent cleanness of the land and the fitness of their respective times of cultivation to one another, in the best condition for the supply of the wants of the crop in question—it is annually manured and cultivated so as best to meet the current wants of the plants cultivated on it—but it is especially dependent for all its powers to bring these crops to a fruitful maturity upon the fact that there is during every shower and after every shower of rain a continual current of water and a current of air throughout its substance, not too rapid, lest its soluble parts should be washed to waste; indeed, it is hardly possible to be too slow; slow enough, however, to dissolve from the soil whatever it contains of food for plants, and fast enough to be continually bringing fresh supplies by every mouth which the absorbing extremities of the roots of plants present.

All these purposes of *warming* the soil, of *introducing substances* within it which shall operate chemically upon the mineral and other matters within the soil, and of *converting the soil into an efficient vehicle* of the matters which it contains, are answered by the percolation of water through the soil. You must not think, then, of drainage as being a contrivance for getting rid of water as an enemy from the land; nor must you think of a wet and ill-drained field as being merely an illustration of the injury done by water *in excess*, as it is called. Water need hardly ever be an enemy, and need hardly ever be in excess. Drainage is a contrivance for making use of it as a friend, and an ill-drained field is an illustration of the mischief done by water, whether there be little of it or much, when not in motion.

It is well, however, to consider the *mischief* that may be done by the percolation of water. If, as it moves through the soil, it contains the

food of vegetables in solution when it passes the mouthpiece of a plant, no doubt it also contains useful matters in solution when it passes into the drain which is to convey it altogether away, and the waste of food for plants by our drainage water is a matter of considerable importance. It has been most admirably investigated by Mr. Wray during the past year. His results are given in the following table:—

Samples of Drainage Water from Mr. Paine's very highly manured field contained grains per gallon of		Samples of Drainage Water from Mr. Acland's poor clay contained grains per gallon of	
Ammonia.	Nitric Acid.	Ammonia.	Nitric Acid.
.018	7.17	.003	4.78
.018	14.74	trace.	2.99
.018	12.72	.012	.628
.012	1.95	.012	.12
.018	3.45	trace.	.485
.018	8.85		
.006	11.45		
.018	3.91		

He found that the drain of water from highly manured fields near Farnham contained eighteen thousandths of a grain of ammonia in every gallon; but as much as four to fourteen grains of nitric acid; while from ordinary poor arable soil in Devonshire the drain water contained from three to twelve thousandths of a grain of ammonia, and from one-tenth to as much as four grains of nitric acid in a gallon.

From this it appears that there is a very large waste indeed of nitrogen in the form of nitric acid in the drainage of very highly manured fields; comparatively little, however, in the case of fields of ordinary cultivation. Whatever it is, we must simply bear it as a tax upon the otherwise general advantage of the practice of land drainage. One very satisfactory thing observable in the results of these experiments is the comparatively small quantity of ammonia which the samples of rain water contain, even when compared with that present in the rain water which falls upon the land.—*Agricultural Gazette.*

For the New England Farmer.

FARMING, AND OTHER PROSPECTS IN KANSAS.

Mr. Editor:—I am what is called here, a "Boston Yankee," and I am also a subscriber to the *New England Farmer.*

Although the New England system of farming is not very applicable here, where the soil is so rich, and where the plow has rarely turned the rich earth to the sunlight, and where one year's labor upon one acre of ground will equal a yield of five years' labor upon one acre of New England soil, yet in every number of your valuable paper we gather new hints, which are a great help to us in our laudable efforts to become farmers. Your domestic articles, hints as to the arrangement of a farm, remarks upon poultry, trees, grasses, &c., are read with interest by two of the old Bay State citizens—viz.: my husband and myself.

I think I have never seen any communications from Kansas in the columns of your Monthly, and perhaps a letter from the fast-improving and glorious Territory may be interesting to many of your readers.

Kansas is swiftly growing. The emigration into our Territory this season, and the number of "claims" that have been taken up and are rapidly being made into farms, is almost unprecedented. Many of the squatters are New Englanders, just the kind we want, for they bring the real go-ahead spirit, and what is best of all, Free State principles. We don't catch a Yankee here that don't have them.

New England homes, New England comforts and pleasures, New England intellect and beauty, New England domestic and social life, have become so proverbial, that to say, "That man is a Yankee," perfectly establishes his identity, and his acquaintance is cultivated forthwith. They will trust a Yankee here, as far as they can see him, and *further, too.*

The new Constitution has been formed at Wyandotte, and probably at the next session of Congress Kansas will be organized as a State under Republican principles. Now, Kansas is performing its political affairs in an honorable and legal manner, and will soon take an honorable position under the stars and stripes of our national flag.

Now is the time to come to Kansas for health, wealth and wisdom. Our troubles have heretofore kept substantial men away, who did not like to risk their all upon uncertainties—but now "come and possess the goodly land," for certainty is now a free and sure word. Kansas has now some excellent citizens, and next year's emigration will consist of substantial farmers, who have sold their property in the East, and will come here with means to buy land, and improve and farm it on an extensive scale. This emigration will bring money among us, and hereafter produce what will continue to bring money.

Possessing a soil of unexampled fertility, a climate healthy and pleasant, extending in an undulating succession of fields of verdure hedged with woodland, Kansas comprises every inducement for a sudden and brilliant prosperity. If the reports of the enraptured "squatters" are to be credited, no other region presents half so many inducements.

I have written you but little concerning the agricultural character, but in another number I will do so, and show the New Englander how we break prairies, make homes, and farm it easy, in Kansas. Susie V——.

Sumner, Kansas Territory, Aug., 1859.

The Wheat Crop of 1859.—The farmers and the entire population of the country very naturally feel a deep interest in the perspective market value of our great staple product, wheat. The crop is very large, and the quality is better than for years. The yield is so great that two bushels can be afforded as cheap as one last year. If 75 cents can be realized now, it gives the farmer better remuneration for labor than $1,50 last year. If the corn and potato crop had been as good in proportion as the wheat and oats, we could hardly have expected to have realized in the Western States even 65 cents for wheat. As it is, we think it is safe to calculate that the market value of good club wheat will not be very far from that figure, and certainly will not remain much below. —*Wisconsin State Journal.*

For the New England Farmer.

THE ONION.

In conversation with a practical gardener this morning, about the remark made by Mr. Huntington, that his best onions, the present season, were on that part of his field where no manure at all was applied, (which field I examined yesterday, and found the fact to be as stated,) he said he had found maggots to rage less on a warm, light, porous soil, than on that which was otherwise. This principle he thought applied equally well to Mr. Huntington's crop, as that which he had applied. Perhaps the true reason may be found in the combination of the two causes. It is important to determine the true cause, because it is admitted by all who have seen them, that Mr. H.'s crop of onions is superior to any other in the neighborhood—full half of most other fields having been destroyed by the worm.

If any mode of checking the ravages of this insect could be made certain, it would be an annual saving to this town of $50,000—and quite as much to several of the adjoining towns.

I have forborne troubling you with communications of late, because I find my neighbors are watching the signs of the times, and are always ready to tell all they know, and *sometimes a little more;* but when *the onion is crowded upon,* I think my legitimate province is invaded. P.

South Danvers, August 30, 1859.

LADIES' DEPARTMENT.

LEGISLATION IN THE NURSERY.

See the young mother in the nursery with an unfolding human character committed to her charge—see her, profoundly ignorant of the phenomenon with which she has to deal, undertaking to do that which can be done but imperfectly even with the aid of the profoundest knowledge. She knows nothing about the nature of the emotions, their order of evolution, their functions, or where use ends and abuse begins. She is under the impression that some of the feelings are wholly bad, which is not true of any one of them; and that others are good, however far they may be carried, which is also not true of any one of them. And then, ignorant as she is of that with which she has to deal, she is equally ignorant of the effects that will be produced on it by this or that treatment. What can be more inevitable than the disastrous results we see hourly arising? Lacking the knowledge of mental phenomena, with their causes and consequences, her interference is frequently more mischievous than absolute passivity would have been. This and that kind of action, which are quite normal and beneficial, she perpetually thwarts; and so diminishes the child's happiness and profit, injures its temper and her own, and produces estrangement.

Deeds which she thinks it desirable to encourage, she gets performed by threats and bribes, or by exciting a desire for applause, considering little what the inward motives may be, so long as the outward conduct conforms, and thus cultivating hypocrisy, and fear, and selfishness, in place of good feeling. While insisting on truthfulness, she constantly sets an example of untruth by threatening penalties which she does not inflict. While inculcating self-control, she hourly visits on her little ones angry scoldings for acts that do not call for them. She has not the remotest idea that in the nursery, as in the world, that alone is truly salutary discipline which visits on all conduct, good or bad, the natural consequences, the consequences, pleasurable or painful, which in the nature of things such conduct tends to bring. Being thus without theoretic guidance, and quite incapable of guiding herself by tracing the mental processes going on in her children, her rule is impulsive, inconsistent, mischievous often in the highest degree; and would indeed be generally ruinous, were it not that the overwhelming tendency of the growing mind to assume the monotype of the race, usually subordinates all minor influences.

DOMESTIC RECEIPTS.

PICKLED BEANS.—Select young beans; string and wash them. Make a brine of salt and water strong enough to bear an egg. Put your beans into it, and let them remain until they change color. Then take them out, and wash them in clear water. Line the bottom of your kettle with green cabbage leaves, put in your beans, and as much vinegar and water, or clear water, as will cover them. Lay cabbage leaves over the top; put them over a slow fire, and let them get scalding hot. When they are green, take them out and let them drain. Put them in jars with some allspice, cloves, a little mustard seed and scraped horseradish, and enough vinegar to cover them. Tie them close, and keep them in a cool, dry place.

PICKLED ARTICHOKES.—First wash your artichokes, put them in strong salt and water, and let them remain four or five days. Then take them out, rinse them in fresh water, wipe them dry, and put them in jars. Add to them cloves, allspice, and mustard seed. Cover with cold vinegar, and tie them up close.

PICKLED NASTURTIONS.—Lay them in salt and water for two or three days; then wash them in fresh water, and let them drain. Put them in jars, and cover them with cold vinegar.

If it should be preferred, a little spice may be added to the vinegar, but it discolors the pickles. A little sugar is a very great improvement.

PICKLED MUSHROOMS.—Select small mushrooms, commonly called *buttons.* Cut off the end of each stalk; scrape, wash and spread them out to drain. Take as much vinegar as will cover them, put into it some stick cinnamon, mace, cloves, allspice, and just enough salt to taste. Put the mushrooms in jars. Boil the spice and vinegar, and pour it over the pickles while hot. Cover them close, as soon as they get cold.—*Widdifield's Cook Book.*

TOMATO PIE.—Line the sides of a deep plate with pastry, slice the tomatoes thin, add sugar, a little butter, some pounded cloves and nutmeg, and half a cup of water. A little flour makes the sirup richer. Cover the whole with pastry, leaving an opening in the centre to let the steam escape.